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Rural Enterprise Zones in Theory and Practice: An Assessment of Their Development Potential

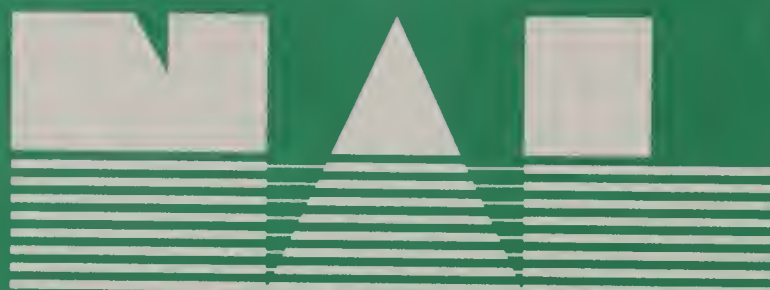
Richard J. Reeder

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Rural Enterprise Zones in Theory and Practice: An Assessment of Their Development Potential.
By Richard J. Reeder. Agriculture and Rural Economy Division, Economic Research Service, U.S.
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Abstract

State enterprise zone programs use tax incentives and other forms of assistance to encourage business development in distressed areas. Research suggests that enterprise zones have been fairly successful in generating jobs, and the cost per job created appears reasonable when compared with other job creation programs. Although enterprise zones may not be appropriate for all rural areas, most rural zones appear to be doing as well as or better than urban zones in creating jobs. Zone performance might be improved by screening out potentially unproductive zones, by providing more hands-on technical assistance, and by modifying program incentives.

Keywords: Enterprise zones, tax incentives, rural development, economic development, distressed areas, program evaluation, industrial location.

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Summary

During the 1980's, 37 States created enterprise zone programs, which use tax incentives and other government assistance to encourage business development in distressed economic areas. Federal legislation has also been proposed to create Federal enterprise zones. Whether these zones are effective in creating jobs in distressed areas has been a subject of much debate. How many jobs are created? Who gets the jobs? What kinds of jobs are they? How much does it cost to produce the jobs? State and Federal agencies have sponsored a wide variety of studies to answer these questions, but the effectiveness of enterprise zones in rural areas has not received sufficient attention.

This report provides information on rural zone performance to help policymakers evaluate and/or modify zone policy. It draws on findings from existing studies and from the author's own analysis of data from a 1986 survey by the U.S. Department of Housing and Urban Development.

Enterprise zones appear to have been fairly effective at stimulating rural economic development, at least in the States and zones studied to date. The jury is still out, however, on the overall success of the programs. Economic theory is ambiguous about zone program potential, and empirical information remains spotty.

Theorists remain divided about the effect of tax incentives on business location decisions, though some such effect is likely. Other aspects of enterprise zone programs, such as planning, marketing, and other nontax activities, are less controversial and are usually credited with having more potential for program success. These nontax program characteristics might be particularly important in rural areas, where local economic development activities tend to be minimal. Theory suggests, however, that barriers to development render many rural places unlikely to benefit from zone policy.

Empirical information on actual zone performance is more positive than the theoretical assessments, indicating that zone programs have been associated with increased employment in many distressed areas. Most State and nationwide assessments have been positive, at least about the job creation performance of the zones. Case studies and anecdotal information also tend to emphasize the success of enterprise zones. But not all of these studies are convinced that zone policy is responsible for the observed increase in employment. Zone performance has varied from place to place. Not all zones have done well, and most programs have been criticized for various shortcomings.

Too little empirical information is available on rural zones to make much more than tentative conclusions at this time. What data exist suggest that rural zones have performed satisfactorily and appear to have been as cost-effective as urban zones, though there is much variation from place to place. Some of the most productive rural zones have been in smaller towns--a finding that should interest States that exclude small towns from zone designation. The principal drawback of rural zones may be that they tend to create low-paying jobs in traditional manufacturing industries, a common characteristic of development strategies in rural areas.

Several policy options might improve rural zone performance: (1) modifying the zone eligibility and selection process to improve the success potential of the zones and to give rural areas a better chance of obtaining zone designation; (2) evaluating and modifying zone business incentives to reduce the cost per job and to improve the quality of jobs created by the program; and (3) providing more encouragement and hands-on planning and marketing assistance to rural zones to increase their job creation potential.

Rural Enterprise Zones in Theory and Practice: An Assessment of Their Development Potential

Richard J. Reeder

Introduction

Enterprise zones (EZ's) were first adapted from England in the late 1970's and aimed at improving conditions in distressed urban areas. By the end of the 1980's, EZ's were established in 37 States and were being used for both rural and urban economic development. Most States continue to view their programs as experimental and subject to modification.

The key ingredient in most State EZ programs is targeted State tax incentives: tax reductions or credits offered to businesses that create new jobs or make new capital investment in the designated distressed areas.¹ These tax incentives are usually provided both to firms that are new to the area and to local firms that are expanding operations in the area.

Most EZ's, however, offer more than just tax incentives. Some State governments give priority to EZ's in providing nontax economic development assistance, such as infrastructure, business loans, and job training funds. Local governments often provide additional incentives for firms to invest in the area, such as property tax abatements, reduced development fees, streamlined regulations, and improvements in local infrastructure and police and fire protection. These local government EZ activities may be either voluntary or required by the State as a condition for receiving EZ designation. Thus, there is substantial interstate and intrastate variety in zone incentives.

Enterprise zones' effectiveness at stimulating rural economic development is an important policy issue at the State level. Almost half of all State EZ's are rural (that is, located outside of Metropolitan Statistical Areas). Most rural EZ's, however, are concentrated in a small number of States, each with many EZ's. Many States have few or no rural zones, reserving EZ status almost exclusively for metro areas. Such urban-oriented policies are based on the assumption that EZ's, originally designed for urban areas, are most effective in an urban setting.

¹EZ's are distinguished from most other economic development approaches in that they reduce State taxes for businesses in designated distressed areas only. For example, many States offer other tax incentives to businesses, but usually to improve a State's overall business climate vis a vis other States rather than to assist distressed areas within the State. Other Federal and State programs target distressed areas, but most do not provide tax incentives to businesses.

Rural EZ's are also of interest to Federal policymakers. The Federal EZ program enacted in 1987 authorized the formation of 100 EZ's, a third of which were to be rural (nonmetro).² The 1987 legislation did not fund tax incentives, and Federal zone designation has been stalled until additional legislation gives more substance to Federal EZ's. Most bills that came before Congress in recent years had set-asides for rural zones ranging from one-third to one-half of the zones.³ Other characteristics of Federal EZ legislation, such as population or area size limits, might restrict rural zone eligibility.⁴ More information on the effectiveness of rural zones should help Federal policymakers choose among legislative alternatives.

Goals and Strategies of Rural Enterprise Zones

Rural enterprise zones are being used in a variety of contexts. Some rural EZ's appear aimed at diversifying and revitalizing rural economies that suffered from fluctuations in resource-based industries, such as energy, mining, timber products, and agriculture, during the 1980's. For example, some EZ's promote certain types of nonfarm industries, such as footloose, hi-tech businesses or travel and tourism. Others try to rebuild the local economic base by bringing back traditional manufacturing industries.

The strategies employed by EZ's sometimes reflect specific goals, such as providing special tax incentives to create jobs for disadvantaged individuals, making regulations easier and capital more available for small business entrepreneurs, and improving the interaction of public and private groups in the local economic development process. Most of these activities are meant to bring about changes in the way employees, employers, bankers, and public officials behave in the development process, thereby increasing the number and/or quality of jobs available to residents, enhancing the profitability and growth of small businesses, and improving the overall business climate.

Most rural EZ's have the same bottom-line objective: to increase employment and income for rural residents. One study concluded that State EZ programs fall into two goal-oriented categories (9).⁵ Some focus almost exclusively on economic development. Others emphasize broader goals, including housing, community development, and overall quality of life. The programs in rural States tend to fall into the economic development category, while the programs of the urban Northeast tend to fall into the broader-goal category.

²The words rural and nonmetropolitan will be used interchangeably in this report to refer to any county located outside of Metropolitan Statistical Areas.

³The 1992 House bill (HR11) that was part of the Urban Aid Act vetoed by President Bush on Nov. 4, 1992, called for one-half of the zones to be in rural areas (25 rural, 25 urban).

⁴The 1992 House bill required that rural EZ's have a population of at least 1,000, may not exceed 10,000 square miles, may not contain more than four contiguous counties, may not consist of more than three noncontiguous parcels, and may not extend over State boundaries (except Indian reservations). This combination of minimum population and maximum area can prohibit some small towns and lightly populated areas from applying as individual zones, but two or more such places in the same region might jointly qualify as noncontiguous parcels.

⁵Underlined numbers in parentheses refer to sources listed in References.

Expectations of policymakers may vary significantly from State to State and from place to place. Some States, especially those in the south-central part of the country (Arkansas, Kansas, Louisiana, Mississippi, and Texas), seem to use EZ's on a fairly widespread basis, providing EZ's to most distressed communities that are willing to try them. These programs tend to be **noncompetitive**, with EZ status available to almost all communities that qualify as distressed (fig. 1). Many of the communities may lack basic ingredients needed for development, such as adequate leadership or infrastructure. Hence, many EZ's in these States might fail to generate substantial economic activity. Nevertheless, such a noncompetitive approach could still be judged a success if the cost to State and local taxpayers is modest and if at least a few notable EZ's thrive, providing employment and income to a significant number of disadvantaged or otherwise unemployed residents. Providing EZ's to a large number of places may also correspond to a strategy aimed more at improving overall State conditions than at achieving significant economic turnarounds in designated areas.

Most States, especially those in the Northeast, restrict EZ designations to a relatively small number of distressed places. These mostly **competitive** programs require distressed local communities to compete with each other for EZ status. The competition process usually requires that local areas first put together EZ applications and draw up comprehensive, community-specific development strategies. States then award EZ designations to the most qualified places, taking into consideration such factors as: (1) local economic development potential; (2) workability of local economic development strategy; (3) evidence of local commitment to the strategy; and (4) compatibility with State and regional economic development policy.

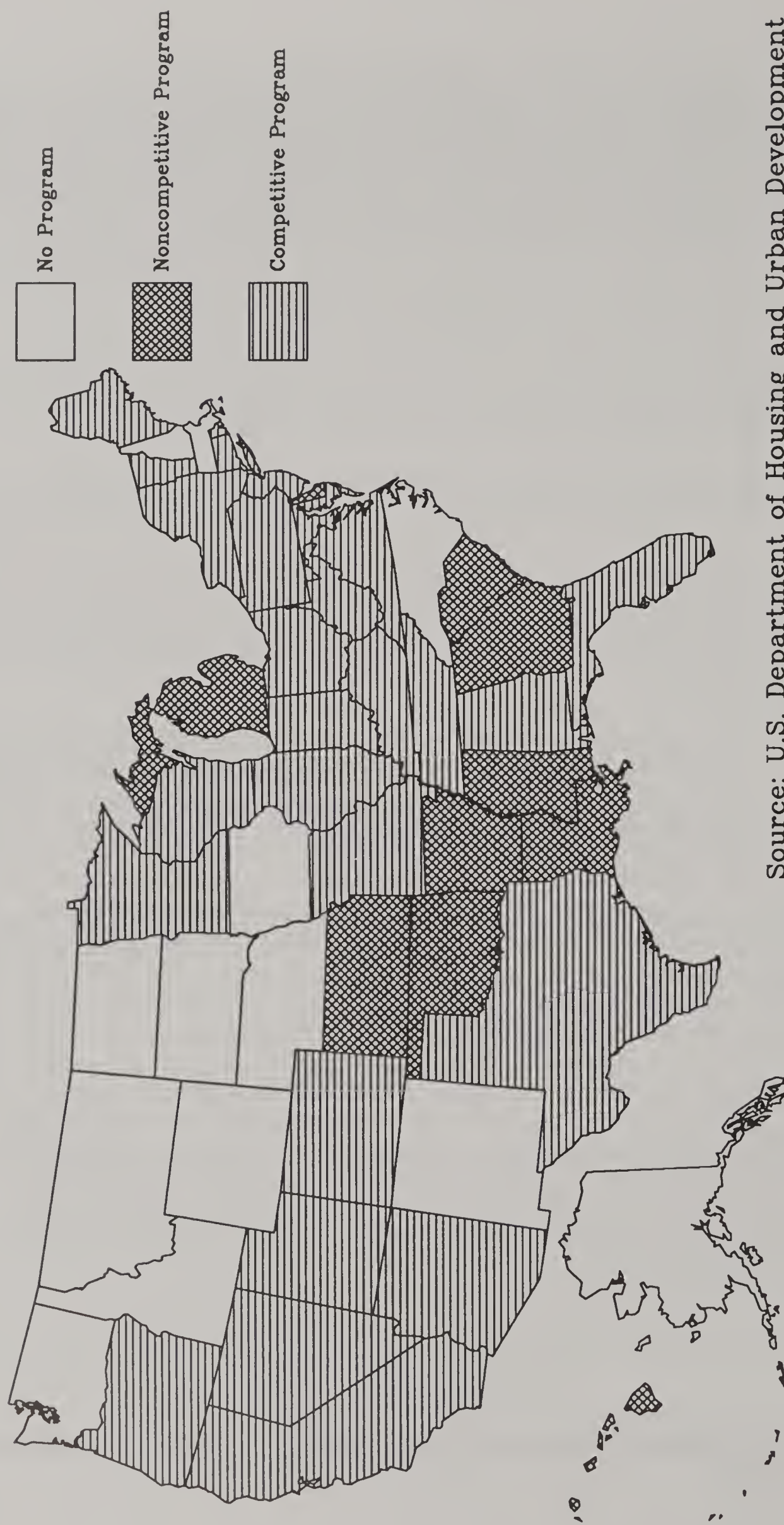
By weeding out places with neither the incentive nor the potential to take full advantage of EZ program benefits, competitive EZ programs ought to have a greater success rate than noncompetitive programs. Competitive programs have other advantages over noncompetitive programs. With fewer zones, States can afford to provide more substantial incentives to EZ firms. Fewer EZ's promote less intrastate competition among EZ's.

Given that EZ's were originally envisioned to address the problems of distressed urban areas, it seems reasonable to question how well the typical State EZ program functions in rural areas. Are there any underlying theoretical reasons for expecting rural EZ's to perform better or worse than urban EZ's? What does the empirical evidence, both quantitative and qualitative, say about the performance of rural EZ's? Are EZ's cost-effective when compared with other rural economic development programs?⁶

This report gathers information from a wide variety of sources in an attempt to illuminate, if not resolve, these key policy questions. Theoretical questions concerning the "potential" strengths and weaknesses of EZ's in promoting rural economic development are addressed by invoking location theory. Empirical questions concerning program effectiveness are addressed by referring to evaluations of "actual" EZ programs. Evaluations generally include both quantitative (number of jobs created and cost per job) and qualitative (subjective judgments from case studies) evidence on the performance of EZ programs.

⁶This report concerns mainly economic development, as opposed to housing and community development, objectives.

Figure 1
States with enterprise zone programs, 1991



Source: U.S. Department of Housing and Urban Development

Enterprise Zones in Theory

England's Peter Hall, a professor of geography at Reading University, formulated the concept of enterprise zones after visiting the bustling port cities of Hong Kong and Singapore in 1977. Hall concluded that the robust, export-oriented economies of these "freeports" were due largely to their being relatively free of customs and import duties and other government regulations. He speculated that Britain could foster the same kind of development by creating a similar free enterprise environment for "some derelict corner of the London or Liverpool docklands" (14). This idea was picked up and modified by the Conservative government of Margaret Thatcher, whose Chancellor of the Exchequer, Sir Geoffrey Howe, viewed enterprise zones not simply as freeports to induce foreign trade, but as distressed inner city areas where all forms of entrepreneurial activities could be encouraged by eliminating most taxes and regulations, and by keeping government services to a minimum.

When the British EZ program was enacted in 1980, it "only faintly resembled" Peter Hall's original concept, emphasizing corporate income and property tax (rate) reductions rather than deregulation or relaxation of customs duties (14). Government services in British zones appear to have increased rather than decreased, as public authorities played a major role in the "initial service of land and the provision of appropriate infrastructure improvements" (14). British EZ's have also been implemented outside distressed inner cities. More than half of the first 25 British enterprise zones were placed in nonmetropolitan areas (5).

Stuart Butler of the Heritage Foundation first proposed the creation of American EZ's in 1979. State governments were quick to adopt the EZ approach. The number of States with operational EZ programs expanded from 4 (Connecticut, Florida, Louisiana, and Ohio) in 1982 to 37 by the end of the decade. Some of the first State EZ programs were clearly enacted to compete for Federal EZ funds expected upon the enactment of a Federal program. Federal EZ legislation was first proposed in 1980 by Congressmen Jack Kemp and Robert Garcia. The only Federal EZ legislation enacted thus far, however, has been the 1987 Act that authorized the creation of 100 Federal EZ's. However, these zones lack Federal tax incentives, and none have been designated to date.⁷

Characteristics of State Programs

State EZ's differ from British EZ's in various ways. Many State programs emphasize job creation for disadvantaged residents; some EZ tax credits are provided only to firms that employ disadvantaged residents of the zone. British EZ's are generally located in underutilized and unoccupied areas and meant to revitalize the businesses and employment in the areas. Disadvantaged residents in the zones are not singled out in program objectives (14). State EZ's also involve a broader mix of incentives than British EZ's. Many State programs promise that the State will give EZ's priority in the receipt of State assistance, such as community development, infrastructure, and training programs. Many State programs are also competitive, requiring localities to contribute to the zone through local tax

⁷The 1987 Housing and Community Development Act (Public Law 100-242) authorized the designation of 100 Federal zones (urban and rural), but provided no tax incentives, with the only benefits being that the U.S. Department of Housing and Urban Development and the U.S. Department of Agriculture were authorized to waive certain regulations and coordinate and expedite the delivery of their programs in the zones.

incentives or other local assistance, such as streamlining the permit process, providing loans and technical assistance to small businesses, improving infrastructure, and assisting with training.

The programs that have evolved in the States share three defining characteristics:

- (1) tax incentives to businesses that create or retain jobs and investment in designated zones;
- (2) nontax government policies that reduce barriers to economic development in designated zones, including improved economic development planning, public-private cooperation, reduced regulatory requirements,⁸ small business assistance, training of unskilled labor, and infrastructure improvements; and
- (3) requirements that places must be distressed in some way to be designated as enterprise zones.

Not all State EZ programs have all three characteristics. For example, the Pennsylvania program emphasizes nontax benefits to businesses and involves no tax incentives. In contrast, some States offer little other than tax incentives, leaving other benefits up to the locality. In addition, not all States are stringent in restricting EZ's to the most distressed areas. In some States, most businesses may qualify for EZ benefits.

Pro and Con Arguments

The pro and con arguments for EZ's usually focus on either the tax or nontax incentives (5, 6, 9, 12, 37). Critics of EZ's often focus on the tax incentives, arguing that they do not reduce business costs sufficiently to affect location decisions and employment growth. The nontax features of EZ programs tend to be ignored, perhaps because these provisions are less objectionable or because their costs are relatively small or hard to determine.

Proponents argue that EZ's employ tax incentives in a different way than previous programs, affecting the actions of both the local community and the firms. Tax incentives may not amount to much in total value to the typical firm, but they are highly valued by local development officials as a marketing device that focuses the attention of firms on distressed areas. This provides local governments with a powerful incentive to become more aggressive in economic development activities (particularly in competitive programs). Proponents of EZ's tend to emphasize the benefits of the nontax elements of these local economic development activities. Through improved economic development planning and the removal of barriers to development (such as infrastructure or training deficiencies), the economic outlook of a distressed area can be improved, offering another incentive for businesses to grow in the zones.

⁸Although the original concept of EZ's emphasized deregulation in fostering development, most States have made little effort in this direction, perhaps because most of the regulatory burdens placed on businesses involve environmental or labor-management issues that cannot be easily waived (52, p. 7).

The restriction of EZ's to distressed areas is another matter of debate. EZ programs are different from "growth center" programs, which subsidize the growth of places believed to have great economic potential to create jobs for residents of the surrounding, economically stagnant region. EZ's are typically places with considerable economic distress (high unemployment, low incomes). In the case of EZ policy, improving conditions for zone residents is usually a higher priority than improving conditions for residents of the surrounding region.

Some critics of EZ's question the value of trying to reverse the economic fortunes of distressed areas, noting that the barriers to economic development in some of these places may be too great to overcome through government policies. Proponents of EZ's counter that many distressed areas face only minor barriers to economic development and can be revived economically with a modest push in the right direction. Moreover, distressed zones often have cheap, vacant land available for development. Hence, EZ's are less likely to experience the problems that growth centers have when rising land prices drive out businesses that cannot afford higher rents and taxes.

Effects of Tax Incentives

Economic theory predicts that tax incentives reduce costs to firms and, hence, ought to influence some firms to expand in the area, other things being equal. Until recently, there has been little empirical evidence to support this theoretical prediction. The conventional explanation for this failure to observe any beneficial effects of tax incentives has been that tax incentives are insignificant compared with other cost factors affecting business location decisions. In cases where tax incentives are substantial, the "other things being equal" assumption of economic theory may break down. In other words, State and local governments may have to reduce government services or raise taxes on existing firms to pay for tax incentives. Thus, the net effect on location decisions is more ambiguous.

Even if the tax incentive leads to increased local production, it may not create local employment growth. For example, EZ programs that lower the cost of capital through a sales tax credit on capital investment may encourage a firm to purchase new machinery and equipment to automate a production process. This may actually decrease, rather than increase, the number of employees required (31).

Traditional arguments refuting the notion that taxes influence industrial location have relied heavily on surveys of businessmen who, when asked to rank factors contributing to industrial location decisions, rank taxes relatively low compared with factors such as availability of a trained labor force and proximity to product markets and inputs. These findings have been bolstered by past empirical analyses that measured the effect of taxes on employment or migration and failed to find a significant statistical relationship. Such findings argue against the potential for EZ tax incentives to have much effect.

Recent research, however, provides more support for the basic economic prediction that taxes influence business location decisions. With the help of sophisticated modeling and statistical methods, recent studies have been able to identify significant relationships between taxes and development (26, 27).

These empirical findings are not necessarily inconsistent with the earlier industrial location surveys. The earlier surveys may be faulted for their equating the relatively low ranking that taxes receive with little absolute effect on business locations. This assumption ignores the importance of marginal factors in economic decisions. For many industries, a large number of sites may be almost identical with

respect to high-ranking factors, such as labor force and market proximity. In such cases, relatively low-ranking factors (such as taxes) may determine which of these places will be chosen.

Most of the earlier studies also concerned traditional manufacturing firms, whereas the more recent studies are more general in scope and provide a better perspective on recent employment growth, most of which is in services and other nontraditional industries. Of particular interest to many policymakers today is high-tech industries. These industries are believed to be more footloose due to their products and services being relatively lightweight and cheap to transport. Although these developments do not eliminate the importance of transportation links and proximity to markets for business locations, they should reduce their importance (5). Hence, taxes may play a relatively larger role in location decisions today than in earlier years.

The Zero Sum Argument

If EZ tax incentives stimulate local economic development in EZ's, how much local development results and at what cost? The extent of the local development effect will be discussed later in this report, whereas the cost question involves the "zero sum" argument.

When one community's employment gain comes at the expense of an identical employment loss in another community, there is a net gain of zero in total national employment. This zero-sum result most clearly occurs when a firm or plant leaves one community and goes to another community, a simple relocation. In such cases, for every job gained by the destination community, a job will be lost in the original community. Thus, to the extent that EZ incentives (tax and nontax) result in firm relocations, the benefits to the EZ may be offset by costs to communities that lose these businesses. A parallel argument may be made that the benefits associated with EZ-induced business expansions and new business startups may be offset by reduced expansions or startups elsewhere, assuming that the expansion or startup would have occurred anyway and that the EZ incentives only affected the location.

Displacement is another way in which a "zero sum" can occur. Displacement occurs when a firm's decision to locate or expand in an EZ increases costs for other firms in the area, thereby causing such firms to reduce their local employment or employment growth. For example, local governments may exempt the new business from local taxes, while raising taxes on existing businesses to pay for infrastructure and public services supplied to the new business. New business growth or expansion, therefore, results in increased taxes for existing businesses, and it may also add to their rents and congestion costs. This could stifle the growth of some businesses, and it might even drive out some marginal businesses.

The net job growth associated with EZ policies must account for offsetting job losses, which may occur both inside and outside the zone. In addition, the tax costs of EZ policies should include not only the tax reduction offered to the EZ firms, but also the reduction in tax collections due to related employment and income decline elsewhere.

The real world contains few perfect zero-sum situations. Many EZ programs are aimed at removing barriers to development. Through improved local planning, public services (mainly for businesses), and infrastructure, EZ's may tap underused resources such as vacant land and unemployed residents (50, 52). Hence, existing firms may be able to take advantage of latent economic development potential and increase jobs without offsetting job reductions elsewhere.

Another reason why EZ's may not experience as many zero-sum difficulties as the more common "smokestack-chasing" development strategies is that EZ programs often emphasize small business development. Small businesses tend to be more vulnerable to bankruptcy than large businesses. Hence, an EZ tax break, properly structured to suit small business needs, could mean the difference between survival and bankruptcy for a small business. Small businesses also would benefit more from streamlined regulations than would large businesses. EZ's may have the potential to reduce business costs enough to increase small firm survival rates or stimulate a small firm's startup or expansion that would not have taken place elsewhere.

In some respects, however, EZ tax incentives may favor established large corporations over new small firms. State tax incentives often involve nonrefundable income or sales tax credits that are of little immediate value to new small businesses operating in the red. The paperwork required to qualify for EZ tax benefits may prevent some small business entrepreneurs from participating in the program. Some programs actually exclude small businesses entirely from receiving tax credits. Although most of these problems could be eliminated with changes in EZ statutes (such as adopting refundable tax credits), the tax incentives of many existing EZ programs may not be very beneficial to small businesses.

Targeting Distressed Rural Areas

Even if EZ tax incentives have a zero-sum effect on net national income and employment, EZ's can still be justified from a national perspective if they help to redirect future economic growth from high-cost, heavily congested places to distressed rural or urban places that need growth and development. This not only would add to quality of life of almost everyone involved, but it would also improve economic equity (37, 49).

All State EZ programs target distressed places to some degree. Targeting distressed places has two purposes: (1) it reduces costs, allowing States to provide deeper tax incentives or more nontax assistance; and (2) it directs assistance to the places that need it most.

Targeting aid to distressed areas can be a wasteful economic development strategy, particularly if a "worst first" approach is employed, providing aid only to the "worst-off" places with insurmountable economic development barriers. For example, one study concluded that the types of places that many EZ policies are designed to assist appear to lack the characteristics demanded by hi-tech firms creating quality jobs in today's economy. This study further argued that, unless State EZ incentives were increased substantially, few distressed places would be revitalized by an influx of relocating firms (5).⁹

Examples of revitalized enterprise zones tend to confirm this view that success requires real development potential. One study found that the most successful EZ's, although economically distressed at the time of their designation, had experienced economic growth in prior years--an indication that most of them probably still had the basic ingredients required for economic development (9).

⁹Dabney, the author of this study, did note that current EZ incentives might be more effective for small firms.

Many distressed rural areas clearly face formidable barriers to economic development: lack of proximity and transportation to product or input markets, a poorly educated and unskilled workforce, and lack of a university or the economic diversity to become centers of hi-tech development. Such rural areas are not the most conducive to the kind of small business/hi-tech development envisioned in some EZ policies.

Even where these economic development barriers are minimal, local governments may lack the resources to plan, manage, and finance local economic development strategies. Many rural communities have no full-time municipal employees and are unable to plan and coordinate local economic development, respond to questions from businesses, apply for State and Federal grants, or market their EZ to the private sector. Rural communities also tend to have lower per capita incomes and tax bases than urban communities, limiting their ability to finance infrastructure, training, and other public activities associated with EZ success.

However, many of the distressed areas targeted by EZ programs do not face insurmountable economic development barriers. The economic distress measures used to target these programs, such as unemployment rates, employment decline, and population decline, usually reflect short-term distress and not irreversible economic development problems. Those places with insurmountable barriers to development tend to be characterized by long-term economic stagnation, resulting in discouraged workers and outmigration of the unemployed. Outmigration causes most of these worst-off places to have lower unemployment rates than places that are experiencing temporary economic distress. Hence, many of these places may be screened out by EZ programs that target places with high unemployment. Moreover, competitive EZ programs may explicitly instruct State authorities to further restrict EZ's to places with a reasonable potential for economic development.

Such EZ screening procedures should allow distressed rural areas with adequate development potential to be eligible for EZ status. For example, energy-industry sites that have only recently suffered from economic distress may have relatively new and underutilized infrastructure and housing. Another upturn in oil prices could return many of these places to prosperity without any assistance from EZ's, but the likelihood and timing of such an upturn is uncertain. A short-term boost from EZ incentives, however, might speed this recovery by attracting other industries, diversifying local economies, and enabling these places to maintain their infrastructure and reduce their unemployment. Other places with long-term development potential may be suffering from economic recession, the closing of a major industrial plant, or some other short-term phenomenon, and these places may also benefit from EZ designation.

Provisions Benefiting Rural Zones

Critics of EZ policies usually focus on the direct effect of tax reduction on business, ignoring related changes in local economic development policy, some of which may be particularly beneficial to rural zones. For example, many rural communities do not normally do much economic development planning, a key to successful economic development policy. The prospect of the community receiving favorable tax treatment in competitive EZ programs encourages economic development planning in rural communities applying for EZ status.

Competition to receive EZ status may also induce rural communities to initiate other activities more common in urban areas, such as the formation of neighborhood groups like crime watchers, efforts to

improve the relationship between government and business, and increases in local government expenditures on public services and infrastructure. In this way, EZ tax incentives may indirectly improve the business climate and reduce barriers to economic development.

To help finance these activities, some States give EZ's priority when allocating State economic development assistance, such as infrastructure aid, revolving loan programs for businesses, industrial revenue bonds, housing and community development funds, and training assistance. The amounts spent on these State-provided nontax benefits are difficult to measure, since the priority given to EZ's is often informal, not involving explicit set-asides or formula adjustments in State grant and loan programs.¹⁰ One drawback of such informal promises of future aid is that they may lose their effectiveness as an incentive for local actions if they are not followed up by actual fiscal commitments. Permanent provisions in State law establishing special assistance or set-asides for EZ's may overcome local hesitance. Poor States, which are usually more rural than urban, may be unable to make the commitment to fund such provisions in both good times and bad times.

However, rural EZ's may benefit more than urban EZ's from special treatment EZ's receive from State aid programs. Many rural governments lack the grant-writing skills of urban governments. Rural governments with minimal tax bases often lack the ability to match Federal and State funds, a common requirement for receipt of funds. These rural disadvantages in competing for State and Federal funding comprise a barrier to economic development that can be overcome through the technical assistance and preferential treatment some States provide to EZ's.

Most States also provide highly valued marketing assistance to EZ's, promoting the advantages of EZ's to businesses seeking to locate in the State. State marketing assistance is particularly beneficial to rural areas, which tend to be less well-known to businesses than are urban areas.

Enterprise Zones In Practice

A better understanding of enterprise zones' potential for stimulating development is gained by reviewing evaluations of existing enterprise zone programs. The most comprehensive assessment was a nationwide EZ study by Rodney Erickson and Susan Friedman (with Richard McCluskey) of Penn State University, funded by the Department of Commerce's Economic Development Administration (9). This study used as its data base a 1986 survey of State enterprise zone administrators, conducted by the Department of Housing and Urban Development (HUD).¹¹ Some 357 zones from 17 States were surveyed, and over 200 zones provided information on jobs and investment of EZ participating firms.¹²

The Erickson/Friedman evaluation focused on zones that had been in operation for at least 2 years (that is, those in operation by 1984) and found the average job growth per zone from the time of zone designation to the time of the survey was 464 workers. This number includes an average of 333 new

¹⁰The special EZ fund in New Jersey is an exception.

¹¹The data were provided by HUD's Office of Program Analysis and Evaluation.

¹²How many of the nonresponses imply little or no EZ activity is unknown.

hires by EZ participating firms plus additional jobs that were reported "saved" due to some EZ firms canceling their earlier (pre-EZ) plans to lay off workers. The average business investment per zone was \$23.4 million. Total jobs created and retained for the zones responding to the survey was about 98,000; total investment was \$4.75 billion.

A more recent analysis by HUD examined information on 510 operational EZ's from 22 States, focusing on competitive EZ programs (45). Using 1989 survey data, HUD estimated that firms investing in EZ's in these 22 States created about 100,000 jobs since the programs began (mostly in the mid-1980's).¹³ Average number of total jobs created per zone, per year, varied from 11 in Alabama to 280 in New Jersey. HUD estimated that in these 22 State programs, EZ's experienced about \$5.5 billion in new business investment. The average zone received \$4.5 million in new investment per year from EZ participating firms, ranging from \$0.5 million in Alabama to \$22 million in New Jersey.

The May 1989 issue of *Business Facilities* reported that a survey of State EZ coordinators credited EZ's with 184,600 new jobs and 169,000 jobs saved, plus \$18.1 billion in new investment. These and other gross figures have been criticized because many of the jobs and investments might have been made in the zone in the absence of the EZ program (52). In addition, some firms may deliberately postpone planned investments until after zone designation to maximize their tax savings.

Multistate Studies

Most concerns about the EZ job and investment data involve attribution. To what extent is the reported economic growth actually caused by EZ policies, as opposed to other factors, such as unrelated economic events (business cycles, regional economic growth) and other policies of State and local governments?

Routine annual reports issued by State EZ coordinators rarely address this issue. However, a number of studies, mostly funded by State or Federal agencies, do. Their methods vary. Some studies rely on surveys of EZ firms (firms participating in the EZ program) or zone coordinators to assess the extent of economic activity said to be caused by EZ programs. Other studies compare total zone employment growth before and after EZ designation, or compare zone employment growth with contemporary growth in places without zones or with some other geographic unit, such as the Nation, State, or region as a whole. Some studies try to identify a statistical relationship between zone employment growth and specific zone incentives. Most studies conclude that some employment growth can be attributed to EZ's, but the extent of attributable growth varies from place to place, and depends on the research method used.¹⁴

¹³For 8 of the 22 States, job creation was estimated by using the median number of jobs created per zone, per year, in the remaining 14 States, and multiplying by the number of zones and years for the States in question. A similar procedure was used to estimate investment amounts, but in this case, only 9 States reported useful information, and estimates were required for the remaining 13 States.

¹⁴No attempt is made here to examine the performance of British EZ's or the Puerto Rico "Operation Bootstrap" program, which some have viewed as an early version of the EZ concept. These programs are substantially different from EZ's, not only in the types of incentives provided, but also in the economic environment in which they have operated. These programs are discussed in

Erickson and Friedman's multistate study employs several of these methods (9). Their study also shows how difficult it is to draw meaningful conclusions from such methods.

Their survey of zone coordinators in the most successful EZ's attributed job growth to EZ policy somewhat ambiguously. Most viewed EZ policies as having an "important" but "marginal" effect on firm performance. In other words, EZ programs were important catalysts triggering zone economic growth, but their contribution was "marginal" because the growth could not have occurred without the basic facilities, labor force, and other attributes needed for development.

Erickson and Friedman's examination of employment growth in all EZ's (that is, all EZ's reporting total job growth data) found one-third of the EZ's outperformed the U.S. economy in the rate of job growth. This finding can be interpreted as evidence that EZ's did not generally experience rapid employment growth. Erickson and Friedman emphasize, however, that most of these zones were not expected to perform even close to the U.S. average, given the level of distress they had experienced in recent years. In addition, most of the zones were in the South-central region or the Midwest, where the regional economies were stagnant compared with the rest of the country during the mid-1980's. Thus, the finding that one-third of the EZ's exceeded the national average may be interpreted as a sign of success.

The study also used regression analysis of the factors affecting individual EZ economic performance during the 1980's. This analysis was not successful in identifying any statistically significant relationships between specific EZ program activities and EZ employment growth when control factors such as regional growth and other non-EZ factors were included in the regression.¹⁵ Failure to identify significant relationships, however, may just indicate that the regression was not adequately specified. For example, no attempt was made to measure the dollar value of tax incentives, which vary significantly from State to State.¹⁶ In addition, since the analysis only included EZ's and not places that were not EZ's, the regression could not assess the importance of EZ marketing advantages.

Another multistate study that tried to attribute economic performance to EZ program activity was conducted by Sheldon and Elling (41). Their regression analysis of EZ economic performance was based on 1987 and 1988 surveys of 47 EZ's in 4 States: Ohio, Illinois, Kentucky, and Indiana. The dependent variable was the number of firms (not jobs) participating in the program. As with the Erickson/Friedman study, they did not find the number of tax incentives to be a significant factor explaining EZ firm participation.

Sheldon and Elling found, however, that some EZ program factors were statistically significant, depending on the type of firm. For new and expanding firms, administrative staffing level (number of hours of staff time per week devoted to administration of an EZ program) was a significant factor explaining firm participation. New firms were significantly affected by EZ program services (technical

Green (12).

¹⁵A similar analysis examining investment as the dependent variable found only one program factor significant: the dummy variable for Pennsylvania, which has a purely nontax incentive program.

¹⁶The variable used to measure the extent of tax incentive was the number of different tax incentives provided, not the value or cost of the tax incentive.

assistance and streamlined regulations), while expanding firms were affected more by nontax financial assistance (including fee waivers, low-cost financing, and venture capital). Firms relocating from other areas were affected by EZ program services and community revitalization programs (crime prevention, community fix-up). Although this is evidence that EZ's are associated with development, it does not quantify employment and investment effects.

Several multistate case studies were among the earliest studies suggesting that EZ's have spurred employment and investment in distressed areas. A Small Business Administration (SBA) study (18) examined eight metropolitan EZ's that became active around 1982. The eight cities studied were: Louisville, KY; St. Louis, MO; Baltimore, MD; Norwalk, CT; Dayton, OH; Topeka, KS; Philadelphia, PA; and Decatur, IL. Dun and Bradstreet data on individual business establishments were used to track employment and investment trends, by industry, for each EZ, and comparisons were made with the non-EZ portion of each city. Zone economic performance was examined for both the pre-designation period (1980-82) and the post-designation period (1982-84) and compared with similar before and after trends for the rest of the city. Among the more positive findings:

- * All eight zones experienced growth in number of establishments (mostly new small businesses) after zone designation.¹⁷
- * Job growth increased relative to the pre-designation period in six of the eight zones.
- * Zone employment grew as a share of citywide employment in six of the eight zones, declining significantly only in Norwalk.
- * Employment growth was positive in five of the eight zones and exceeded 10 percent in three of the zones (Baltimore, Louisville, and Topeka).

On the negative side, three of eight zones experienced absolute job loss after zone designation (St. Louis, Norwalk, and Dayton). These job losses appear to have been due to the loss of several large manufacturing firms combined with relatively slow small business development.

The authors of the study noted that factors unrelated to EZ programs might have been responsible for some of these developments, both positive and negative. The post-1982 period coincided with the initial recovery stage of a nationwide recession, which probably explains some of the improvements observed in the zones.¹⁸ In the case of Baltimore's zone, the EZ consisted entirely of a business

¹⁷A subsequent analysis by Dabney (1989), using the same data, concluded that the increases in the number of business establishments within the zones may have been a citywide phenomenon. Dabney found no statistically significant differences between the zone and the rest of the city with respect to percent increase in number of businesses. Also, no statistically significant increase in the rate of growth in number of zone businesses was found when comparing pre- and post-designation periods (5, 6).

¹⁸It is not obvious, however, how this would explain some zones performing so much better than the rest of the city.

incubator, so the relative influences of the EZ and the incubator approaches are difficult to distinguish.¹⁹ Some of the cities and their zones were going through major economic transitions, such as from old-line manufacturing to service industries, which might explain some of the job losses in the zones. On net, however, the EZ performance exceeded expectations, given that most of these programs had just begun and major employment increases were not expected for several more years.

Perhaps the most important multistate study was the 10-case study report by HUD (46). These indepth case studies covered a wide range of urban and rural communities in nine States. Most zones reported substantial new employment and investment. Relatively successful zones were purposely selected for the study, which was designed not to measure overall performance but to determine whether EZ policy or some other factor was responsible for the observed success of the zones. The strength of the study lies in the detailed information from over 180 onsite interviews with government officials and businessmen. For example, firms that located or expanded in each zone were asked what role the EZ programs had in their location or expansion decisions.

The results varied widely across the 10 zones. EZ's seem to have been very effective in four zones. In three of the four zones, two-thirds of the firms interviewed said EZ's were a major factor in their location decisions; in the fourth zone, EZ's were important for one-half of the firms. EZ's were only moderately effective in three zones, where EZ's were a key factor for one-third, two-sevenths, and one-ninth of the firms interviewed. EZ's appeared to have had little effect in three zones, where none of the firms indicated EZ's were crucial to their development plans.

One of the problems in interpreting this summary information is that each case study was conducted by a different researcher(s) and the questions posed to the firms varied across cases studies. Some firms were asked if they would have located in the city without the EZ incentives, while others were asked if the EZ was a "major" factor in their location decisions. The former elicited more negative responses than the latter, accounting for some of the differential response rate. For example, one case study asked both questions and found that two-thirds of the firms credited EZ's as a major factor in their decisions, while only half of the firms indicated the location would not have occurred in the absence of EZ's. Another distinction affecting responses involved whether the firm was asked about its initial location or its subsequent expansion. Some firms discounted the importance of EZ's in their initial location decisions, though they credited EZ's with their subsequent expansion decisions.

Many interviewees appeared to focus only on the specific EZ tax incentives and ignored, or were ignorant of, nontax policies and other indirect effects of EZ programs. For example, in one of the three zones where none of the firms credited EZ's for their development (Tampa's Ybor City), most of the firms indicated that industrial revenue bonds (IRB's) were crucial to their location decisions. Respondents were apparently unaware that IRB's were targeted to the Tampa's EZ as part of the EZ program. Similarly, some firms attributed their location to the generally good prospects and recent growth of the zone, without recognizing that EZ policy probably contributed to this. While these are examples of firms that understated the effects of EZ programs, the HUD study also identified firms that overstated EZ policy's effect on their growth because they associated the EZ with unrelated State or local policies.

¹⁹A business incubator is a specially designed structure in which small, fledgling businesses get started and are provided with basic services so they can expand and eventually move to another location.

Businessmen's failure to take into account the various ways EZ's affect the local economy may at least partially explain why zone coordinators tend to attribute more job growth to EZ policies than do spokesmen for firms. Such differences may also result from bias on the part of the zone coordinator. However, EZ coordinators are often responsible for many programs other than EZ programs, and thus they have a fairly small stake in overstating the effect of EZ policies.

All things considered, the HUD study conclusion was generally positive, crediting EZ's not only with attracting new firms but providing incentives for existing firms to grow:

Zone designation appears to produce a positive and tangible impact on business investment in the ten zones. Zone designation itself, the catchy and flexible concept of an enterprise zone, in many instances appears more important in generating new investment than the specific package of incentives offered. Designation provides a significant marketing tool for the zone in particular and for the city as a whole....Designation induces business investment in the zones because it is seen by investors as evidence of a long term commitment to and interest in the zone by local government....Factors other than enterprise zone incentives precipitated location decisions of most zone firms, but zone incentives were more important, if not decisive factors in the decisions of a sizeable minority of these firms. Zone incentives appear to affect business growth and development decisions among zone firms more than they determine companies' basic locational choices (46).

Single-State Studies

The best evidence on the impact of EZ's on employment and investment is found in studies of seven individual State EZ programs. Most of these State studies were generally positive about the effect of EZ programs. Methodologies varied from study to study. Most compared EZ job growth with non-EZ places within the State or surveyed new and growing firms in EZ's to identify the importance of EZ policies in affecting EZ firm location or expansion decisions.

Three States produced evidence suggesting EZ employment outperformed non-EZ's within the State.

- * In California, employment grew faster in each of the EZ's than in the counties that contained the EZ's (2).
- * In New Jersey, EZ job growth compared favorably with job growth in comparable distressed areas that had met EZ distress criteria but had not been awarded EZ designation (39).²⁰
- * In Illinois, two studies, one by Elder and Cohen (8) and the other by McDonald (24), both found employment conditions in counties containing EZ's improved more than in other counties in the State.²¹

²⁰The authors did not reveal which group was more distressed, only that both groups met the required distress levels.

²¹Elder and Cohen assessed employment conditions by examining changes in unemployment rates; McDonald examined changes in employment growth rates.

In both Illinois and New Jersey, EZ job growth was examined before and after EZ designation. In each State, EZ employment grew substantially faster after EZ designation. Although this may have been partially due to general improvements in State economic conditions, further analysis revealed that employment growth rates increased by a larger amount for EZ's than for non-EZ's in both cases.

Five State studies surveying EZ firms found substantial evidence that EZ policies influence firm location and expansion decisions.²²

- * Of the 10 Virginia firms responding, 5 indicated that EZ's were a major factor in job creation, while the other 5 rated them a minor factor (51).
- * Over half of 600 firms surveyed in New York said zone policy affected their decision to locate or expand in the zone: 22 percent were affected "a great deal," 20 percent somewhat, and 14 percent marginally (15).
- * Two-thirds of the firms responding to the New Jersey survey claimed EZ's affected their location plans; one-third said EZ's had a major ("primary") effect.
- * A Louisiana study surveyed 19 rural EZ firms. Over 60 percent claimed the EZ caused them to locate within the EZ county (parish) (27).
- * Half of 50 EZ firms in a California survey claimed they were influenced by EZ's (2).

To generalize, these State studies show that EZ's outperformed non-EZ portions of the State in employment growth rates. EZ's have also shown marked improvement in employment growth from the period prior to designation. In addition, half or more of the new or expanding firms that increased employment within EZ's indicated that EZ policies contributed to their actions. Of these, the first finding is perhaps the more impressive, since EZ's have managed to outperform non-EZ's within the State, despite the fact that EZ's are among the most distressed areas in the State.

Most of these studies stop short of declaring unqualified EZ success, noting that other factors such as changes in the structure of the State or local economy are responsible for relatively good performance of EZ's. Some studies have also found that many if not most of EZ firms might have relocated or expanded to some extent, regardless of EZ policies. Consequently, the total number of new jobs that are directly attributable to EZ policy is likely to be less than total employment growth in EZ's or new jobs reported by firms in EZ's. Some of these studies also question the types of jobs being created, how many jobs are going to zone residents, and the cost of creating the jobs.

²²Only in Kansas were the surveyed firms unlikely to claim they were affected by EZ policy: less than 20 percent of the firms surveyed said EZ's had an effect on their location (32). This may be discounted, however, because of (1) the unusually high proliferation of EZ's in the State (the majority of firms in Kansas were already located in EZ's, hence it was unlikely that EZ's would have influenced many firms to relocate), and (2) the Kansas survey covered both participating and nonparticipating firms within EZ's, whereas most studies only surveyed participating firms.

The General Accounting Office (GAO) Study

One of the most controversial studies was conducted by the General Accounting Office (GAO). It involved only three zones in Maryland (Hagerstown, Cumberland, and Salisbury). The authors emphasized that these were case studies and the findings were not meant to be an evaluation of the Maryland State program (49).

The GAO study found no statistically significant relationship between zone designation and employment growth. This study used a univariate time series analysis with selective exclusions of "outliers." Monthly local employment data were tracked for all program participants (firms receiving EZ benefits) before and after zone designation to determine whether any differences stood out. The study made no effort to separate out the effects of factors other than the enterprise zone, hence the statistical method is not particularly powerful or accurate. GAO did, however, discard the employment growth data from several firms because this growth was large and said to be unrelated to the EZ program. As a consequence, the one zone that exhibited statistically significant employment growth was found to no longer show significant growth after discarding outliers.²³

The GAO conclusion that zone designation did not significantly affect employment growth would seem to suffer from two related problems. First, changes over time are bound to be affected by many factors other than EZ policy. The GAO's univariate analysis included only one explanatory variable: whether or not the employment growth occurred before or after the EZ was designated. It made no attempt to control for other important factors, such as changes in the business cycle or changes in the regional or local economy. Lacking such basic control factors can lead to the failure to find a statistical relationship.

This problem may have been compounded by the selective exclusion of some firms that grew substantially but claimed that their growth was not attributable to EZ policy. A study that excludes outliers in one direction should also exclude outliers in the other direction, if such outliers exist. No mention is made, however, of making any attempt to discard from the data set any such outliers--those firms with substantial employment declines not attributable to EZ policy. Hence, the GAO's selective exclusion of outliers may have led to a bias against finding positive employment growth associated with EZ designation.

The GAO study is valuable for its review of the literature on tax impacts on development. This study also included an interesting survey of firms on the value of enterprise zone benefits and their effects on location decisions, finding these effects varied for different types of firms and incentives.

Cost Effectiveness

The main issue for most policymakers is whether the jobs created by EZ policies are worth the scarce public resources spent on them. Several studies have attempted to produce estimates of the total number and types of jobs created by EZ policies and the total costs per EZ-generated job. Most followed these basic steps:

²³The other two zones also showed some employment growth after zone designation, but the growth was not found to be significantly different from the pre-designation period.

- (1) survey firms or zone coordinators for the total number of new jobs created by firms participating in the EZ program ("total direct" jobs);
- (2) use survey data to identify "net direct" jobs--a subset of the total direct jobs (1) that consists only of those jobs that would not have been created in the EZ in the absence of EZ policies;
- (3) compute "total net" jobs attributable to EZ policy by applying a multiplier to net direct jobs (2) to account for indirect effects of EZ policies on employment inside and/or outside EZ's in the State.
- (4) divide total direct (1), net direct (2), or total net jobs (3) by the total EZ program costs to get the estimated cost per job produced by EZ policies; and
- (5) compare this with the cost per job produced by other government job creation programs.

Six studies computed estimates of cost per job (table 1). All, with the exception of the Evansville study, used survey data as the basis for their job creation estimates. In most cases, these costs probably understate total costs, since administrative costs and costs of State or local government nontax activities on behalf of EZ's are excluded.²⁴ Administrative costs tend to be minimal in EZ programs, but some of the nontax activities may entail substantial costs.

Cost per total direct job ranged from \$437 in Virginia to \$5,613 in New Jersey. Cost per net direct job can be substantially higher than cost per total direct job, because net jobs are fewer. Thus, in New Jersey, the cost per net direct job is \$13,070, more than twice the cost per total direct job. In this case, net direct jobs were computed by netting out those jobs for which the EZ was not viewed to be a major factor. This netted out 68 percent of the reported jobs created by EZ firms (39).

In the Louisiana study, a more conservative approach was used to estimate net direct jobs. All jobs that EZ firms claimed would have been created in the absence of the EZ policy were screened out, including those jobs whose location would have been elsewhere were it not for EZ inducements. This netted out 80 percent of the total jobs that were reported created by EZ firms. The resulting cost per job of net direct jobs was almost five times that of total direct jobs in Louisiana (27).

The Evansville, IN, study (37) differed from other studies in using a shift-share approach to estimate total job growth attributable to the EZ. This method used zone employment data to estimate actual job growth in the zone. It then estimated the job growth expected in the zone, based on regional growth trends and the zone's industrial makeup. This expected job growth was then subtracted from actual job growth to get the total net jobs attributed to the EZ policy. This approach implicitly included new jobs within the zone that are indirectly related to EZ policy, while it excluded EZ-related indirect jobs created outside the zone.

Most of these studies conclude the cost of EZ's is reasonable compared with alternative job programs. The most common comparison is with the Job Training Partnership program (JTPA), currently the Nation's largest jobs program. This program carries an average cost per job of about \$3,200, well

²⁴In most cases, the costs cited are State taxes forgone. Indiana is an exception; almost all of the costs of the Indiana EZ program are in the form of local inventory taxes forgone.

Table 1--Costs per job, selected studies

State	Estimation method	Type of job created	Cost per job
New Jersey	Surveyed 478 EZ firms; netted out those claiming EZ not primary factor in job creation; applied State I/O model to estimate indirect jobs included in total	Total direct Net direct Total net	\$5,613 \$13,070 \$3,171
Indiana	Surveyed 1,068 EZ firms; applied multiplier to total direct jobs reported to estimate total net jobs	Total direct Total net	\$4,116 \$1,036
Louisiana	Surveyed 19 EZ firms; netted out all jobs that firms claimed would have been created either inside or outside the EZ, regardless of EZ policy	Total direct Net direct	\$1,158 \$5,333
Evansville, IN	Estimated total direct jobs as difference between zone and region employment growth; used shift-share analysis to net out jobs attributable to regional and industrial growth trends	Total direct Total net	\$3,135 \$4,117
New York	Surveyed 600 firms; netted out 50 percent that were affected by EZ policy	Net direct	\$4,283
Virginia	Surveyed 33 EZ firms, computed costs per total new jobs reported by EZ firms	Total direct	\$437

within the range of cost estimates for EZ programs.²⁵ A JTPA job, however, is not a close substitute for an EZ job. The EZ program is designed to create new jobs, whereas the JTPA program merely assists disadvantaged individuals to fill existing job openings. Unless large amounts are spent in training these individuals, JTPA costs per job might be expected to be lower than the costs of a job creation program such as the EZ program.

Another problem in comparing EZ costs with JTPA costs is failure to consider indirect effects, such as employment multipliers and job displacement. Most job cost estimates, both for EZ and JTPA programs, do not include such effects. Excluding such effects favors the JTPA program in cost comparisons, because for each JTPA-assisted person who finds a job, a worker who otherwise would have gotten the job must look elsewhere.²⁶ Thus, while the JTPA program has a positive direct effect on jobs for some disadvantaged residents, it may have a negative indirect effect on jobs for other residents (some of whom may also be disadvantaged). In contrast, the EZ program is a job

²⁵John Redman's analysis of 1988 JTPA data found the national average cost per adult JTPA job placement that lasted at least 13 weeks was \$3,227: \$3,452 in metro areas and \$3,086 in nonmetro areas (34).

²⁶This would be more true in distressed areas, such as enterprise zones with their excess supply of labor, than in booming areas with tight labor markets.

creation program and thus is expected to have positive direct and indirect effects on both disadvantaged residents and other residents.

The EZ program has been compared favorably with Public Service Employment--\$8,000 per job (22), Title I Public Works--\$19,000 (3), and Local Public Works, \$13,000-\$15,000 (44), but such comparisons may also be misleading. Evaluations of these programs stress that they produce not only jobs but also public goods and services. Attributing all of the costs of these programs to the jobs created ignores these other program outputs.

The most favorable cost comparison for EZ jobs is with jobs created by macroeconomic policy--\$35,000 per job (22). This comparison, though, is biased in favor of EZ programs, because the success of EZ programs depends on the local availability of other economic development programs, such as infrastructure investment, IRB's (industrial revenue bonds), and small business assistance. Ignoring these costs probably biases EZ program costs downward compared with macroeconomic policy, whose success is largely independent of the local availability of other economic development programs.

A more appropriate cost comparison for EZ jobs is with the Urban Development Action Grant (UDAG) program and the economic development projects of the Community Development Block Grant program (CDBG). Like the EZ program, both the UDAG and the economic development CDBG projects involve primarily job creation and are often packaged with other forms of government assistance. Cost per job for these programs, UDAG--\$5,500 (17), CDBG--\$5,000 (42), are quite reasonable and within the range of cost estimates obtained for EZ programs.

Another way to assess EZ costs is to compare total program costs (taxes forgone and direct expenditures) with the estimated fiscal benefits (additional tax revenues raised plus reduced welfare expenditures). If the fiscal benefits exceed the costs, then the program more than pays for itself, and is hence desirable from the government's point of view, independent of how many jobs are produced.²⁷ The New Jersey study found that fiscal benefits exceeded costs by a ratio of 1.9 to 1. Sheldon and Elling (40) cite another study in Louisiana, which finds a 1.6-to-1 ratio of benefits to costs. Erickson and Friedman (9) compute the same 1.6-to-1 ratio of benefits to costs for a small sample of zones from their multistate study.²⁸ Hence, EZ's appear to offer a reasonable "return" on the tax dollar for most State programs.²⁹

²⁷This approach assumes, of course, that other program effects, such as job creation or displacement, are on net positive or at least not negative.

²⁸However, this includes only local tax costs, not State costs. Adding such costs would reduce the ratio. This study is based on only 13 zones for which survey data on costs were available.

²⁹It should be noted, however, that many government programs have fiscal benefit-to-cost ratios that are estimated to be greater than one. More information is therefore needed to choose among alternative programs.

Other Aspects of Performance

Performance aspects other than providing jobs at a reasonable cost are revealed by recent studies. For example, zone performance on such measures as change in unemployment rate, welfare recipients, and assessed property value has been favorable.

EZ's also appear to produce a favorable mix of jobs. Several studies have found that most EZ programs produce a higher percentage of manufacturing jobs than of other types of industry. Manufacturing jobs generally have higher salaries and involve more indirect jobs (that is, the multiplier is higher) than retail or service industry jobs.

The two Indiana EZ studies (30, 37), found that service jobs actually cost less per job to produce than manufacturing jobs.³⁰ Rubin and Wilder argue that future cost savings can be gained by modifying tax incentives to target those industries with the lowest cost per job (37). At a minimum, sound EZ policy should exclude large warehouses and other types of businesses that involve large tax costs and few or no employees.

Lowering incentives for all manufacturing jobs could prove counterproductive because of the relatively high wages many of these jobs pay. James and Leslie Papke have shown for the Indiana program that manufacturing jobs actually carry a lower cost per dollar of wages than do service jobs (31). Moreover, some of the new service jobs that Rubin and Wilder highlight may be indirect byproducts of the new manufacturing jobs.

Most studies have also found that the majority of firms participating in EZ's are small businesses, which can have significant job growth potential. Several studies have noted, however, that large firms are the chief beneficiaries of EZ programs with requirements for large investment and employment. Thus, small firm development is not universal in EZ programs.

Most studies also find that a substantial percentage of EZ jobs are filled by zone residents. Some EZ programs, though, appear to do poorly with respect to employing zone residents. For example, the Papke study showed that 83-90 percent of EZ jobs in Indiana went to nonresidents of zones. This shortcoming is a major reason the program is ineffective in assisting poor residents in the zones (31).³¹ The Illinois study by Redfield and McDonald claims that poor neighborhoods may be slighted because government and business leaders with influence on zone policy in Illinois "tend to think of enterprise zones almost exclusively as a general economic development tool rather than an anti-poverty or targeted redevelopment program" (33).

³⁰The effectiveness of zone policy in creating service jobs was supported by another study, covering 40 zones in Illinois, which found that various aspects of local zone policy were statistically significant in relation to service jobs creation (10). A second study of the Illinois program, covering 24 zones, found enterprise zones to have been related to higher than average growth in distribution and wholesale trade employment, but not in manufacturing (33).

³¹This study also found that the wages paid to residents in Indiana's zones were substantially below those paid to nonresidents.

Some questions about the extent of the EZ's contribution to economic development relate to the difficulty of measuring employment impacts. Funkhauser and Lorenz's study of the Maryland enterprize zones found it difficult to confirm many of the jobs initially reported as created by zone policy (11). Many of the new employees initially reported under the program did not work long enough (6 months) to qualify for program tax benefits. Given fairly high rates of employee turnover in many industries and the length of time it takes some firms to claim tax credits, it is necessary to look at the data over several years to assess the number of permanent jobs created. In addition, some new employees qualified firms for other tax credits (that is, Targeted Job Tax Credits), making it difficult to attribute their employment entirely to the EZ program.

EZ's have also been found to perform poorly in creating new net investment in some States. For example, the Louisiana study found that only 3 percent of the new investment reported by EZ firms would not have occurred (inside or outside the zone) in the absence of the EZ program. Papke's study in Indiana included a statistical time series analysis of inventory investment trends.³² This analysis found no statistical differences in the before-after investment trends between Indiana's EZ's and comparable non-EZ areas within the State, suggesting EZ's had no statistically significant impact on investment in the Indiana zones (30).

EZ's vary from State to State and from place to place. They often have different goals as well as different incentives and program structures. EZ's cannot perform equally well with respect to each of the various program objectives of policymakers and researchers. Variations in measured EZ performance are also to some extent inevitable given the different evaluation methods.

Rural Enterprise Zone Performance

Most studies make no distinction between rural and urban areas in assessing EZ program performance. This makes it difficult to draw conclusions about the effectiveness of rural EZ's. Much of the information on rural EZ's is anecdotal or derived from case studies. This information is supplemented by a few State and national studies with information on small city or rural EZ's.

The HUD data base on 347 EZ's in 1986 is the only comprehensive source of data on rural EZ performance nationwide. Erickson and Friedman analyzed this data to identify factors that contributed to EZ job growth (9). Not all variables were available for all EZ's, so the empirical analysis included only 91 EZ's from 14 States. About one-third of the EZ's in this sample were nonmetropolitan. The measure of job growth was the annual average number of jobs created or saved by new and expanding firms within the EZ, as reported by EZ coordinators.

Metropolitan status (a 0/1 variable indicating location outside/inside a metropolitan area) was one of the control measures in this study. The statistical correlation between this variable (MSA) and EZ job growth was positive, but not statistically different from zero. This variable was positively and significantly correlated to another performance variable, the annual average increase in the number of establishments in the zone.

³²Inventory investment was analyzed because Indiana's main EZ tax incentive involves an inventory tax exemption.

Based on this analysis, Erickson and Friedman asserted "it may be far more difficult to effect significant economic gains in nonmetropolitan or rural areas than in metropolitan places using the enterprise zone strategy" (9). This conclusion does not hold for employment growth, only for the number of new firms. Hence, it could reflect only a different marketing emphasis in rural vs. urban EZ's. Rural EZ's often go after a few large firms, whereas urban EZ's are often more interested in small business development.

Correlation analysis is often subject to error due to spurious correlation with other variables, so Erickson and Friedman used multiple regression analysis, including 16 variables, reflecting location and scale, environment, land use, regional economy, and State policy differences. In the regression analysis, the coefficient for metro status was insignificantly different from zero when explaining both the growth of jobs and number of establishments.

The regression analysis found only two variables significant in explaining job growth at the 0.05 level of error: zone population (in log form) and percent minorities (in log form).³³ The positive relationship between zone population and job growth appears to indicate poor performance for rural or small city EZ's. But this relationship probably results from the use of absolute change in jobs (rather than percentage change) as the performance measure. The tendency for less populous EZ's to create fewer new jobs may only reflect their smaller economic base and may not imply that their growth rate is worse than more populous EZ's.

For growth in number of establishments, the regression analysis found three significant variables: zone area (log form), number of zones in the State (log form), and a dummy variable for the Pennsylvania EZ program (which performed better than other programs in adding establishments in EZ's). Of greatest interest to rural EZ's is the positive relationship (0.20) between zone area and number of new establishments. One criticism of State EZ policies is that many rural areas often have difficulty qualifying for EZ status because their low population density prevents them from defining zone boundaries that satisfy both the minimum population requirement and the maximum zone area allowed. This analysis suggests that larger zone areas enhance EZ performance, providing a good argument for relaxing zone area limitations in the more restrictive State programs.

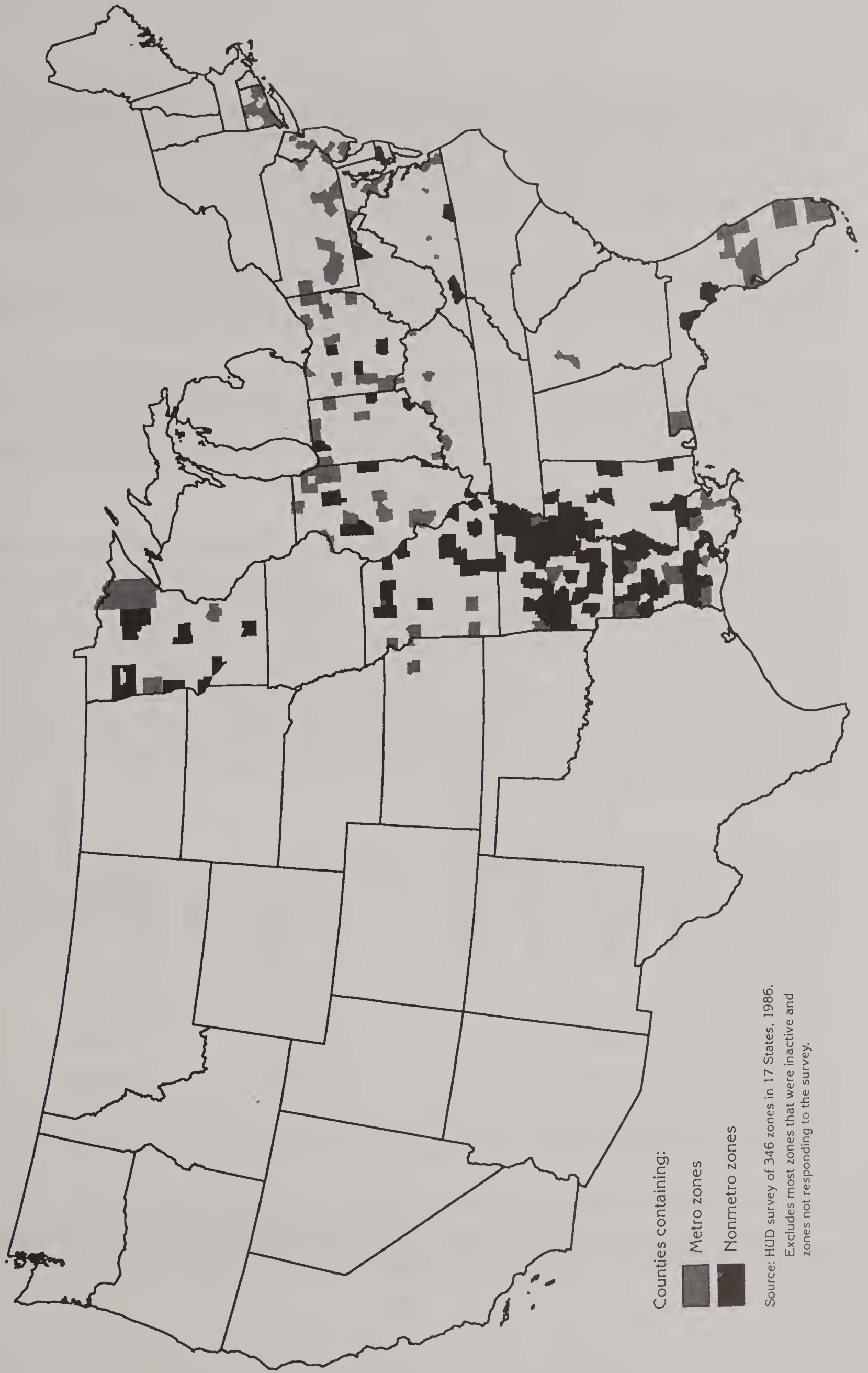
Reeder and Robinson (35) examined the HUD EZ survey data, focusing specifically on rural-urban differences.³⁴ They found that most of the 158 rural (nonmetro) zones in the total HUD sample of 345 EZ's were in the South-central part of the country (fig. 2).³⁵ The noncompetitive programs in Louisiana and Arkansas produced the most rural EZ's. The competitive programs in the Mideast and Midwest were more likely to feature urban zones. The HUD data did not include programs created

³³Percent minorities had a positive effect on zone job growth. Erickson and Friedman provide no explanation for why minority concentrations would be positively associated with EZ success.

³⁴The total number of EZ's in the HUD sample was 347. Reeder and Robinson excluded one or two as outliers, leaving 345 or 346, depending on the context.

³⁵Many counties (especially the urban counties) had more than one zone, hence the number of counties with EZ's in fig. 2 is less than 345, the total number of EZ's.

Figure 2
Counties with enterprise zones in the 1986 HUD survey



after 1986, most of which are in the Northeast or west of the Mississippi. Among the pre-1986 programs, though, rural zones were more numerous in noncompetitive than in competitive programs.

Other notable rural-urban zone differences were revealed by examination of zone baseline data for the year of zone designation (in most cases, the early- to mid-1980's). Rural zones averaged only about 5,000 population, while urban zones averaged about 21,000 (table 2). Urban zones had a greater concentration of minorities (urban--54 percent minority population, rural--28 percent), perhaps reflecting the tendency to locate urban zones in large central cities with heavy concentrations of minorities. Both urban and rural zones, however, had the same high level of economic distress, when measured by unemployment rates (16 percent) and family poverty rates (33 percent).

To compare urban and rural zone performance, Reeder and Robinson followed Erickson and Friedman's example in excluding inactive zones (those reporting no jobs created or saved). New (and saved) jobs were computed on a per-zone-resident basis, in recognition that rural zones, having relatively small populations, need to create fewer new jobs than urban zones to get the same reduction in economic stress. Of the 107 active zones reporting jobs created and saved and having the requisite baseline population data, 41 were rural and 66 were urban.

The rural zones in this subsample averaged about 2 jobs created or saved for every 100 residents. The urban zones averaged about 3 jobs for every 100 residents. Although these aggregate numbers suggest that rural zones performed more poorly than urban zones, it would be wrong to conclude that rural zones in general performed worse based on these statistics. The statistics cited here are job totals divided by population totals for all the zones combined, and are more reflective of the performance of the more populated zones in each category than of the typical urban or rural zone (this seems to have been the case with rural zones in particular). In addition, job growth was not calculated on a per-year basis, perhaps favoring urban zones, which were among the first created. Urban zones in this sample also were more likely to report jobs saved than were rural zones.³⁶ Since reports of jobs saved are often viewed as questionable and hard to verify, some of the urban zones' performance edge over rural zones may be more fictional than real.

Table 2--Characteristics of State enterprise zones in HUD survey¹

Measure	Nonmetro	Metro
Number of zones	158	188
Average zone population	5,245 (N=88)	20,879 (N=141)
Average percent unemployed	15.9 (N=69)	16.6 (N=116)
Average percent minority population	27.8 (N=52)	54.4 (N=104)
Average percent of families in poverty	33.7 (N=52)	33.0 (N=104)

N = Number of survey responses.

¹Characteristics at time of zone designation.

Source: 1986 HUD survey data.

³⁶Among the most productive urban zones, 8 of the 66 urban zones in this sample reported more than 1,000 jobs created or saved; jobs saved were greater than jobs created in 4 of these 8 zones.

Variations in individual zone performance, measured by the annual number of new hires (excludes jobs saved) created per 100 zone residents show a different picture (fig. 3). Almost half of the urban zones examined (25 out of 53) produced less than 2 new jobs per 100 residents, whereas only about one-third (9 of 26) of the rural zones were performing at this low end of the spectrum.³⁷ Zone policy that produces jobs for 1-2 percent of a zone's population is itself a significant achievement, but may not totally offset job losses by declining firms in the area, which were not taken into account in the HUD survey.³⁸

Only 2 of the 53 urban zones created jobs for more than 10 percent of the population, while 5 out of 26 rural zones achieved this level of success. The rural zones in this sample, therefore, appear much more likely to achieve substantial annual job growth relative to population.

Declaring rural zones more effective than urban zones would be premature. The relatively small size of the sample precludes any definitive nationwide conclusions. In addition, over half of the rural zones in this sample were from one State, Arkansas, while the metro zones were spread more evenly among the States.

Figure 3
Performance of selected EZ's, 1980-86

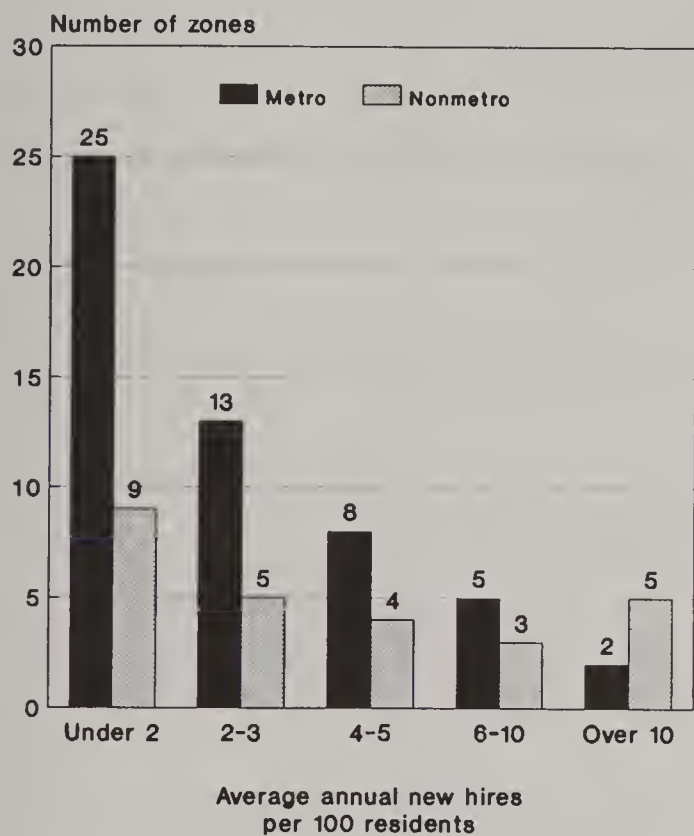
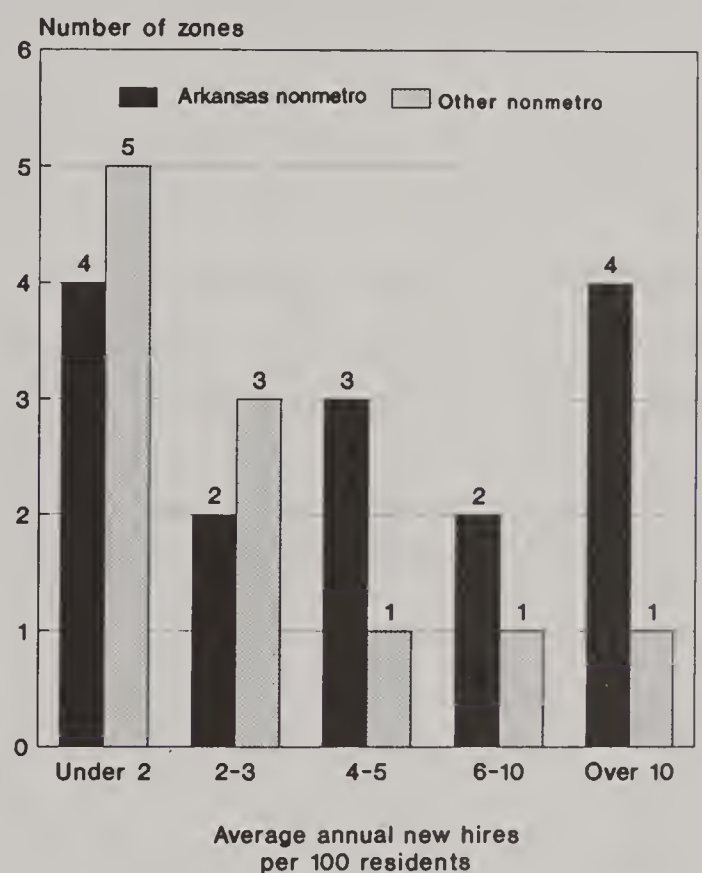


Figure 4
Performance of rural zones, 1980-86



³⁷This analysis of individual zones included fewer zones than the aggregate analysis because not all zones had the requisite data on date of zone designation.

³⁸The HUD survey asked only about jobs and investments of firms actively investing in the area during the period following zone designation.

Arkansas zones accounted for almost all (4 out of 5) of the top performing rural zones (fig. 4). Thus, it is unclear whether the observed urban-rural differences reflect differences in urban and rural zones or something unique about Arkansas' program or reporting methods.

Arkansas' performance is surprising since its EZ program is noncompetitive, involving little more than tax incentives. Consequently, one might have expected Arkansas' zones to have performed worse, not better, than other rural and urban zones in the sample, many of which were from the more highly acclaimed competitive programs in the Northeast. However, the population size of the zone, rather than the type of program, may determine the likelihood of significant zone success.

Of the rural zones with superior zone performance (annual new hires greater than 10 percent of population), 4 out of 5 had populations under 1,000 (table 3). Only 2 rural zones with less than 1,000 population performed at the two lowest levels, while all 5 zones with populations greater than 5,000 performed at the two lowest levels. The superior performance of Arkansas' rural zones appears due to their substantially smaller zone populations than other rural zones in the sample. All 15 of Arkansas' rural zones had less than 2,000 population, and 7 had less than 1,000 population. Only 4 of the 11 rural zones in other States had less than 2,000 population; only 1 had less than 1,000 population, and this one was the only rural zone in the sample outside of Arkansas with a superior performance.

Table 3--Nonmetro zone performance, by zone population size

Zone population size	New hires per 100 zone residents					N ¹
	< 2	2-3	4-5	6-10	> 10	
	<u>Number of EZ's</u>					
All nonmetro:						
Over 5,000	3	2	0	0	0	5
1,000-5,000	5	2	3	2	1	13
Under 1,000	1	1	1	1	4	8
Arkansas:						
Over 5,000	0	0	0	0	0	0
1,000-5,000	3	1	2	1	1	8
Under 1,000	1	1	1	1	3	7
Other States:						
Over 5,000	3	2	0	0	0	5
1,000-5,000	2	1	1	1	0	5
Under 1,000	0	0	0	0	1	1

¹N = total number of zones.

Source: 1986 HUD survey data.

Whereas small zone population size may improve rural zone performance, rurality of the surrounding area may actually stunt zone development (table 4).³⁹ Half (2 of 4) of the zones in urbanized nonmetro counties (counties with 20,000-50,000 urban population) were in the top two performance ranges. Only one-fourth (5 of 19) of the zones in less urbanized counties (2,500-20,000 urban population) and one-third (1 of 3) of the zones in totally rural counties (less than 2,500 urban population) did this well.

Table 4--Nonmetro zone performance, by county rurality

County degree of rurality ¹	New hires per 100 zone residents					N ²
	< 2	2-3	4-5	6-10	> 10	
	<u>Number of EZ's</u>					
All nonmetro:						
Urbanized	0	2	0	1	1	4
Less urbanized	7	3	4	2	3	19
Totally rural	2	0	0	0	1	3
Arkansas:						
Urbanized	0	0	0	1	1	2
Less urbanized	4	2	3	1	2	12
Totally rural	0	0	0	0	1	1
Other States:						
Urbanized	0	2	0	0	0	2
Less urbanized	3	1	1	1	1	7
Totally rural	2	0	0	0	0	2

¹Urbanized (more than 20,000 urban population); less urbanized (2,500-19,999 urban population); totally rural (less than 2,500 urban population).
²N = total number of zones.
Source: 1986 HUD survey data.

³⁹This finding--that EZ's in urbanized nonmetro counties have done better than EZ's in totally rural nonmetro counties--does not conflict with the finding that small, lightly populated zones perform better than more heavily populated zones. The former refers to the effect of the outlying county area on the zone, while the latter refers to the conditions within the zone itself.

The small number of zones involved in this analysis tempers any conclusions. Still, location in one of the more urban nonmetro counties may give a nonmetro enterprise zone certain competitive advantages, such as a larger and more diverse labor force, more private and public service inputs, and a larger local product market. A more urban county may also have more firms nearby to relocate within the county in order to take advantage of EZ benefits. Presumably, these advantages associated with more urbanized counties would be equally advantageous to nonmetro zones with both large and small populations.

Types of Jobs Created

Policymakers are interested not only in the total number of jobs created, but also in the characteristics of the jobs. How long will these jobs remain in the local economy? What types of skills and salaries do the jobs entail? Who is being employed? (Zone residents? Disadvantaged residents?) Robinson and Reeder (36) provide insights on these topics in their analysis of the HUD data base, focusing on HUD's survey of 1,430 EZ firms.

Inferences from these data should be viewed as tentative, since the total number of new hires covered by HUD's survey of firms was less than 5,000 (out of over 100,000 new hires reported in HUD's survey of zone coordinators). This is a relatively small, and possibly unrepresentative, sample. Nonmetro EZ firms reported more new jobs than metro EZ firms, contradicting the larger survey (of zone coordinators) showing that metro zones created more new jobs.

Erickson and Friedman's analysis of these data concluded that most of the jobs created by EZ's are not low-skilled, low-pay, sweatshop jobs (9). While this is probably a fair statement, there are some important differences between metro and nonmetro zone employment characteristics.

Of the 1,430 EZ firms responding to HUD's survey, 258 were from nonmetro zones. Almost two-thirds (165 of 258) of the nonmetro firms were involved in manufacturing and these firms accounted for 94 percent of the jobs created in the nonmetro zones (table 5). About half of the nonmetro manufacturing firms surveyed were engaged in traditional rural manufacturing (including food processing, tobacco, textiles, apparel, wood products, furniture, paper, and concrete industries). Two-thirds of the jobs created by nonmetro EZ firms were in these traditional rural manufacturing industries.

Manufacturing firms played an important, but less significant, role in metro zones. A little over half (56 percent) of new metro EZ jobs were in manufacturing firms, and a larger proportion of metro manufacturing jobs were in nontraditional manufacturing, such as printing and publishing, chemicals, petroleum, rubber, primary and fabricated metals, machinery and computers, electronics, transportation equipment (autos, etc.), and measurement and optical equipment. Consumer services (mostly retail trade) accounted for 30 percent of the metro zone jobs, compared with only 5 percent in nonmetro zones. Producer and distributive services accounted for 6 percent of metro zone hires; these industries hired few if any new employees in nonmetro zones.⁴⁰

⁴⁰Producer services include business services (such as advertising, computer services, stenographers), agricultural services, finance, insurance and real estate services, legal services, and services not elsewhere defined. Distributive services include transport services (railroads, air, water, and ground transport), communications, electric, gas, sanitation, and wholesalers.

Table 5--Industry mix of enterprise zone firms and jobs

Industry group	Nonmetro				Metro			
	Number of firms	Percent share	Number of jobs	Percent share	Number of firms	Percent share	Number of jobs	Percent share
Extractive	4	1.6	0	0.0	3	0.3	0	0.0
Construction	2	0.3	0	0.0	34	2.9	147	7.6
Manufacturing	165	63.9	2,671	94.0	297	25.4	1,085	56.0
Traditional manufacturing	85	32.9	1,915	67.4	112	9.6	497	25.7
Other manufacturing	80	31.0	756	26.6	185	15.8	583	30.3
Consumer services	51	19.8	147	5.2	358	30.6	573	29.6
Retail trade	36	14.0	139	4.9	267	22.8	573	29.6
Other consumer services	15	5.8	8	0.3	91	7.8	0	0.0
Producer services	10	3.9	0	0.0	133	11.3	32	1.7
Business services	1	0.4	0	0.0	39	3.3	9	0.5
Other producer services	9	3.5	0	0.0	94	8.0	23	1.2
Distributive services	13	5.0	0	0.0	103	8.8	89	4.6
Miscellaneous services	4	1.6	0	0.0	32	2.7	10	0.5
Unclassified	9	3.5	25	0.9	212	18.1	0	0.0
Total	258	100.0	2,843	100.0	1,172	100.0	1,936	100.0

Source: 1986 HUD survey data.

High concentrations of nonmetro EZ jobs in traditional manufacturing imply lower-skilled and lower-paying jobs than the manufacturing jobs created in metro EZ's. However, many of these new manufacturing jobs may still pay as much as or more than the average wage in nonmetro areas. Metro zones appear to better attract hi-tech jobs, which are more likely to be in producer and distributive services and nontraditional manufacturing industries. Whether this reflects a different program orientation or a different economic environment is unclear. The metro zones, however, are also subsidizing a substantial share of lower-paying retail jobs. Nonmetro zones, either by accident or by choice, do not subsidize many of these jobs. On net, therefore, it is not all that obvious whether nonmetro or metro zones are providing the best jobs.

Most nonmetro EZ jobs appear to be in manufacturing, so they are more likely to be permanent and full-time than are the seasonal or part-time service jobs associated with some of the more common rural development strategies (such as tourism or promotion as a retirement site). The data also suggest that a relatively large number of small firms benefit from EZ's, implying that most EZ firms are homegrown and are not relocating from elsewhere. Nonmetro zones, however, appear to benefit disproportionately from firm expansions, and some of these firms may have headquarters outside the zone.⁴¹

Nonmetro firms responding to the survey produced substantially more jobs per firm (10) than did metro firms (1.5) (table 5). Much of this difference reflects the greater importance of larger, more traditional manufacturing firms in nonmetro areas. Even within this industrial classification, nonmetro firms produced more jobs per firm than did metro firms. This finding may reflect a nonmetro EZ focus on larger firms or firms with greater potential for job growth.

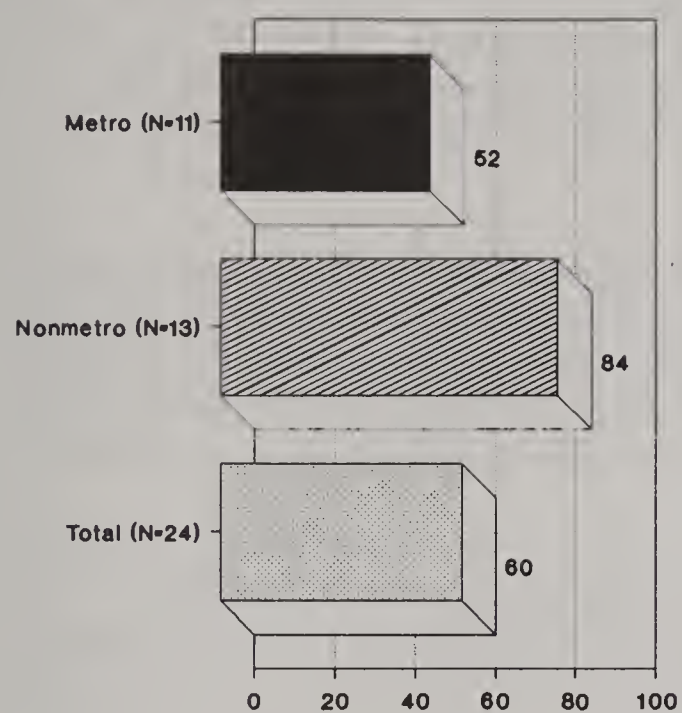
The HUD survey of zone coordinators provides limited information on job recipients. Only 20-30 zone coordinators responded to this topic. These data suggest that many jobs are going to zone residents and disadvantaged individuals (fig. 5). Three-fifths of the jobs created or saved in responding zones went to zone residents, two-fifths to low-income individuals, and almost half (45 percent) to unemployed individuals. Nonmetro zones appear to have done better in securing jobs for zone residents (84 percent of new hires went to zone residents) than did metro zones (52 percent). The most likely explanation for this is that nonmetro zones encompass a larger proportion of rural labor markets, while metro zones more often cover only a small portion of the metro area where workers live.

It is important to restate here that these conclusions about the types of industries and individuals participating in EZ's are based on a small sample (particularly for metro firms and zones) that may not be representative of the typical EZ nationwide. More definitive conclusions must await better data.

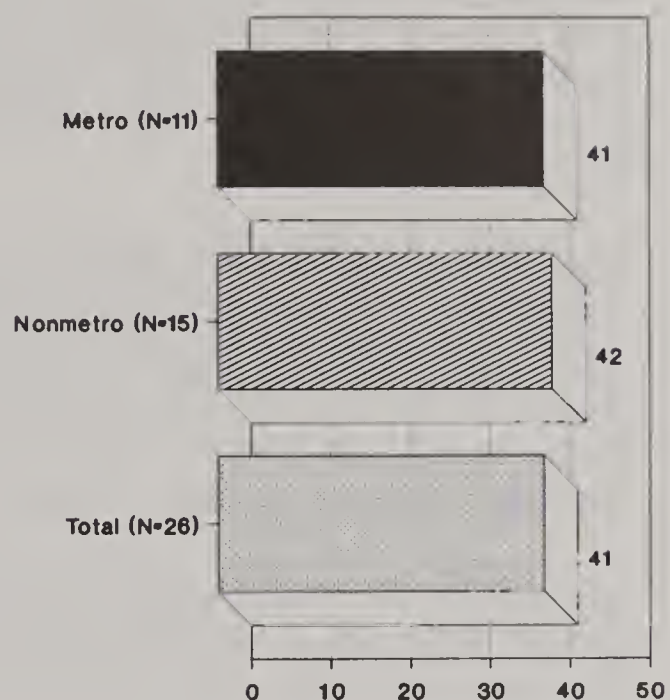
⁴¹The HUD data indicate that, in nonmetro zones, firm expansions outnumbered new firms, 126 to 74. In metro zones, the reverse was true, with new firms outnumbering firm expansions, 753 to 606.

Figure 5
Percentage of EZ job recipients, by residence, income, and employment status

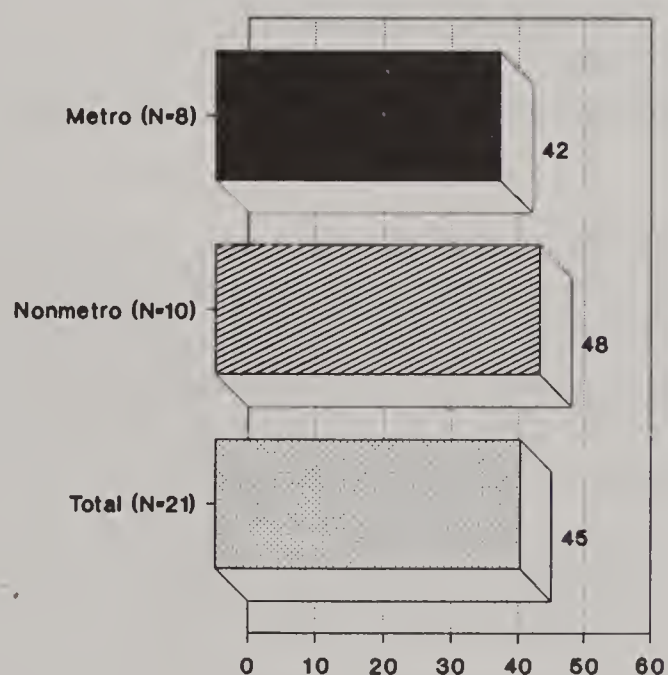
Percent of jobs going to zone residents



Percent of jobs going to low-income individuals



Percent of jobs going to unemployed individuals



N = Number of zones reporting.

Attributing Jobs and Costs to Enterprise Zone Policies

Studies of zones in four States, Kansas, Indiana, Illinois, and Louisiana, provide information particularly relevant to the performance of rural (or small city) EZ's. The Kansas and Louisiana programs are atypical in that both are relatively noncompetitive, with EZ designation virtually automatic if a community applies for zone status and the zone meets the predetermined distress criteria. Not coincidentally, both States have a large number of EZ's. As of 1992, Kansas had 255 EZ's and Louisiana had 1,553 (the median State had 17 EZ's) (48). Many, if not most, of the EZ's in each State are in nonmetro areas. Illinois' competitive program also has a large number of zones (88 as of 1992), and a fair number of these are in nonmetro areas. Indiana's competitive program has relatively few zones (15). Most of Indiana's zones are in metro areas, but a fair number of these are in small cities.

Ann Patterson and Bradley Ambrozier (32) examined 1985-88 EZ performance in Kansas and found that smaller cities (less than 5,000 population) used EZ's much less frequently than did larger cities (over 5,000) (table 6). The lower EZ participation rate for smaller cities (less than 5,000) occurred despite the fact that less than 40 percent of Kansas' smaller cities had population growth above the State average from 1970-85. In contrast, 67 percent of large cities (20,000 and up) grew above the State average during the same period.

The authors speculate that many smaller (more rural) cities did not take part in the EZ program because they lacked the local expertise to fill out the application. Applications required a documented plan for how the EZ would eliminate economic distress, including:

- * A resolution from the governing body of the city or county;
- * At least one local incentive;
- * A schedule for implementation of local incentive(s);
- * Six copies of the enterprise zone map;
- * Written description of enterprise zone area(s);
- * The land area calculation;
- * The population calculation;

Table 6--Participation rates in Kansas EZ's, by city size

City size (1985 population)	Number of cities	Number of EZ's (1988)	Cities with EZ's as a percent of total
1-999	422	36	8.5
1,000-4,999	156	82	52.6
5,000-9,999	15	13	87.0
10,000-19,999	20	18	90.0
20,000 and up	15	11	73.0

Source: (32)

- * Documentation of distress criteria; and
- * Legal opinion of city or county attorney.⁴²

The authors noted that small cities near metropolitan areas or interstate highways were relatively active in applying for zone status to remain competitive with metro areas. Otherwise, small cities had little interest in zone designation.

A great many of the small cities in Kansas do not have a dynamic economy. That is, many communities exist merely as residential communities or as a small agricultural service center within a totally rural area. Unless unusual circumstances exist, the non-existence of factors that drive economic development eliminates the necessity for seeking enterprise zone designations. Hence, the obvious lack of designated enterprise zones among the smaller communities (32).⁴³

The Kansas study measured zone performance using a 20-percent sample of manufacturers that were new or expanding employment in 1985, 1986, or 1987. The sample was stratified by city size and EZ status. For this survey, the city size classes were small (less than 6,500 population), medium (6,500-40,000), and large (over 40,000). A telephone survey of company representatives produced 108 responses, with an average of only 18 responses per category.

This survey's findings with respect to jobs created inside and outside EZ's might lead some to conclude that manufacturing firms have grown more rapidly inside EZ's than outside EZ's (table 7). Given the proliferation of EZ's in Kansas, however, these findings may reflect only the fact that there are more firms (and hence more job growth) inside EZ's than outside EZ's. The findings therefore do not necessarily imply that the firms inside EZ's grew at a greater rate than firms outside EZ's. For the same reason, it is difficult to make meaningful comparisons of new job totals from one city size to another.⁴⁴

⁴²This list of requirements was provided by the Kansas Department of Commerce, Division of Community Development.

⁴³Dabney (5) presents a slightly different argument for the lack of rural participation in the Texas EZ program. He argues that many rural areas in west Texas experienced substantial outmigration associated with economic difficulty, but this in turn kept their unemployment rates from rising appreciably. This makes it difficult for these places to meet the unemployment rate distress requirement for EZ designation. Yet, "the community still experiences high levels of economic distress and stagnation in the form of business closings...abandoned housing, and a reduction in the local tax base." Dabney also notes that west Texas communities have been less active in getting EZ's because they already had the advantage of "the lack of excessive regulations or high taxes (and because of their) general community attitudes resisting government programs."

⁴⁴For example, although medium city EZ's appear to produce many more jobs than the other two city classifications (table 7), this probably reflects the high extent of proliferation of EZ's in medium-size cities (table 6).

Table 7--Kansas survey of manufacturing firms

City size (1985 population)	Firm location in 1988	Number of jobs created, 1985-87	Percentage of firms inside EZ's that		
			Were aware of EZ status	Received EZ sales tax benefits	Were affected by EZ
		<u>Number</u>	<u>Percent</u>		
Less than 6,500	Inside EZ	793	39	21	17
	Outside EZ	383	--	--	--
6,500-40,000	Inside EZ	1,254	52	38	14
	Outside EZ	263	--	--	--
Over 40,000	Inside EZ	344	55	40	5
	Outside EZ	170	--	--	--

Source: (32)

Another factor that makes it difficult to attribute this job growth to EZ policy is the tendency for industrial parks to be located in EZ's. The study observed that EZ's were often found in "highly industrialized areas," adding to their job creation potential (32). Hence, EZ policies may account for only part of the differences in manufacturing employment growth observed.⁴⁵

The modest influence of EZ policy on the firms' employment growth is supported by the firms' responses on the extent of this influence. Many firms inside Kansas' EZ's were unaware that they were even located in an EZ at the time of the survey, and many had no idea what an EZ was. This ignorance was particularly true in smaller cities (less than 6,500), where less than half (39 percent) of the firms were aware that they were even in an EZ.

Despite the lack of awareness in small cities, 17 percent of the firms surveyed in small city EZ's indicated EZ's had an effect on their decision to locate or expand in that location. In medium and large city EZ's, where there was more awareness of EZ policy, EZ's were less likely to be said to have influenced firms (14 percent and 5 percent, respectively). The relatively small percentage of firms affected by EZ's in large cities is particularly interesting, given that a relatively large percentage of firms in large city EZ's indicated that they received EZ sales tax exemptions (40 percent).⁴⁶

The Kansas study does not provide any detailed data on costs per zone. The above survey responses do suggest, however, that the cost per net job may be substantially lower in small cities than in medium and large cities because there was less of a "free rider" problem in the small cities. Free riders are firms that receive benefits even though they claim they did not change their behavior as a result of EZ policy. Only 4 percent of the firms surveyed in small cities received EZ benefits but

⁴⁵They also noted that the sample of firms was not stratified by number of employees in each firm, which "greatly limit(s) the relevance of this information." This appears to refer to the possibility that one or two large firms could distort the findings in unpredictable ways.

⁴⁶Unlike some other studies cited in the previous section, the Kansas survey data do not indicate the extent of the effect--that is, there is no indication that the EZ had either a major or minor effect.

were not affected by EZ policy. In medium cities, 24 percent of the firms surveyed received benefits but were not affected. In large cities, 35 percent received benefits but were not affected.⁴⁷

This finding that small city zones may be more cost-effective than large city zones is consistent with a study of Indiana zones (31) that estimated average cost per new job for zone residents, for 10 of Indiana's zones, and for 3 years (1986, 1987, and 1988).⁴⁸ In 1986, zones in the 5 largest cities (86,000-181,000 population) had costs per job ranging from \$22,000 to \$62,000. The costs per job were much smaller for zones in the smaller cities (12,000-60,000), ranging from \$1,700 to \$7,152. Only one of the small cities was in a nonmetro county, but this city, Madison, IN, had the smallest cost per job, \$1,700.⁴⁹

The authors did not emphasize or offer any explanation for the differences among zones of different population sizes. Another study of the same Indiana zones (38) concluded that organization structure was one of the factors that explained the differing zone performance. In some of the larger cities, the zone authority (in Indiana, this consisted of a public/private partnership organization created or contracted by the community to run the zone) tended to lack sufficient decisionmaking autonomy and support from the community and from city leaders. In the smaller cities, the zone authority was more likely to be entrepreneurial, having greater autonomy and greater support from the city and the community.

An Illinois study (23) also found that small city or rural zones performed better in employment growth than did large city zones. This study examined 27 Illinois zones, and separated out two groups, one consisting of 12 big city zones in Cook County (Chicago), the other of 15 zones in "downstate" Illinois. Of the 15 downstate zones examined, 7 were in nonmetro counties, 3 were in small metro counties (less than 250,000 urban population), 3 were in medium metro counties (250,000-1 million), and 2 were in a fringe county of a large (over 1 million) metro county. This group of counties is therefore substantially less urban than the group of Cook County zones.

The post-designation (1983-87) employment growth of the 15 downstate counties with EZ's was 6 percent, slightly higher than the 5.3-percent employment growth of downstate counties without EZ's during the same period. This difference is magnified considering that in the 4-year period preceding EZ designation the downstate EZ counties suffered an 8.3-percent employment decline, compared with a 1.5-percent decline for downstate non-EZ counties. Some improvement in employment growth was

⁴⁷The Kansas study notes that there were some instances where a firm moved into an EZ and failed to qualify for EZ benefits. There may also be a substantial portion of firms that have applied for EZ status but have yet to receive any tax reductions. Hence, these statistics should be interpreted with caution.

⁴⁸The cost-per-job estimates may appear large relative to those cited in other studies, because only jobs for zone residents are counted in the computation, ignoring jobs created for nonresidents.

⁴⁹This same general pattern held for 1987 and 1988, though costs per job tended to rise over time. The main exception to this pattern was that Evansville, one of the larger cities, reduced its cost per job to about \$13,000 in 1988, while a couple of the smaller cities' costs rose above that level. Madison, the nonmetro zone, did not experience any cost increase and continued to have the lowest cost per resident job.

expected in both groups because of the economic recovery beginning in 1982, but the greater degree of improvement in the downstate EZ counties suggests the influence of EZ policy.

The study of the Cook County zones included 12 zones: 6 in the inner city of Chicago, and 6 in the southern and western suburbs. Unlike the examination of the downstate zones, which looked at employment growth in counties with EZ's versus counties without EZ's, the Cook County analysis compared employment growth within the EZ's with employment growth outside the EZ's but inside the same county. This analysis concluded that the EZ program had no statistically significant impact on total employment in the Cook county zones.⁵⁰ On a more positive note, this study found an association between Cook County's EZ's and employment growth in the distribution sector (transportation and wholesale trade). A similar association was found for the downstate zones.⁵¹

Redfield and McDonald (33) surveyed 837 firms in 8 of Illinois' EZ's: 4 downstate zones and 4 Cook County zones. More than half (51 percent) of the firms investing in EZ's were unaware of the EZ, and many (41 percent) of the other firms did not use EZ tax incentives. Awareness and usage of EZ tax incentives was higher in the four downstate zones than in the four Cook County zones. In addition, a larger percentage of downstate zone firms reported at least some EZ influence on their investments: downstate, 41 percent; Cook County, 38 percent. Of the total dollars invested in the zones by the firms in this survey, 77 percent was influenced at least somewhat by the zone tax incentives: a higher percentage of investments was affected by zone incentives in the downstate zones (84 percent) than in the Cook County zones (57 percent). However, general conclusions comparing metro and nonmetro zones are hazardous because these eight case studies include only two nonmetro zones.

A 1989 journal article (27) on Louisiana EZ's is unique in two respects. First, it focuses exclusively on rural (outside of metropolitan areas) EZ's and their cost effectiveness. Second, whereas other studies have attempted to net out the new zone jobs that firms claim were not affected by zone policy (and hence would have been created in the zone anyway), Nelson and Whelan also net out new jobs that the firm indicates would have been created elsewhere in the absence of the zone policy, while still counting the EZ program costs associated with these jobs. The resulting cost-per-job estimates should be interpreted as Louisiana's cost per net new job created in the Nation, rather than Louisiana's cost per net new job in the State or in the zone itself.

The data for the study came from a mail survey of the 50 firms participating in 40 nonmetro EZ's active from January 1, 1983, to June 30, 1985 (includes 30 rural EZ's and 10 "urban nonmetropolitan" EZ's, which are EZ's in parishes (counties) with more than 50,000 residents but not part of a metro

⁵⁰The period of study was 1985-89. The author did not present information on trends before designation.

⁵¹One of the local incentives that Cook County included in their program was found to be critical for 61 percent of the firms that qualified for the incentive. This was the substantial local property tax reduction--56 percent for 8 years and 17 percent for 4 more years--that was available only to firms involved in transportation and wholesale distribution of manufactured products.

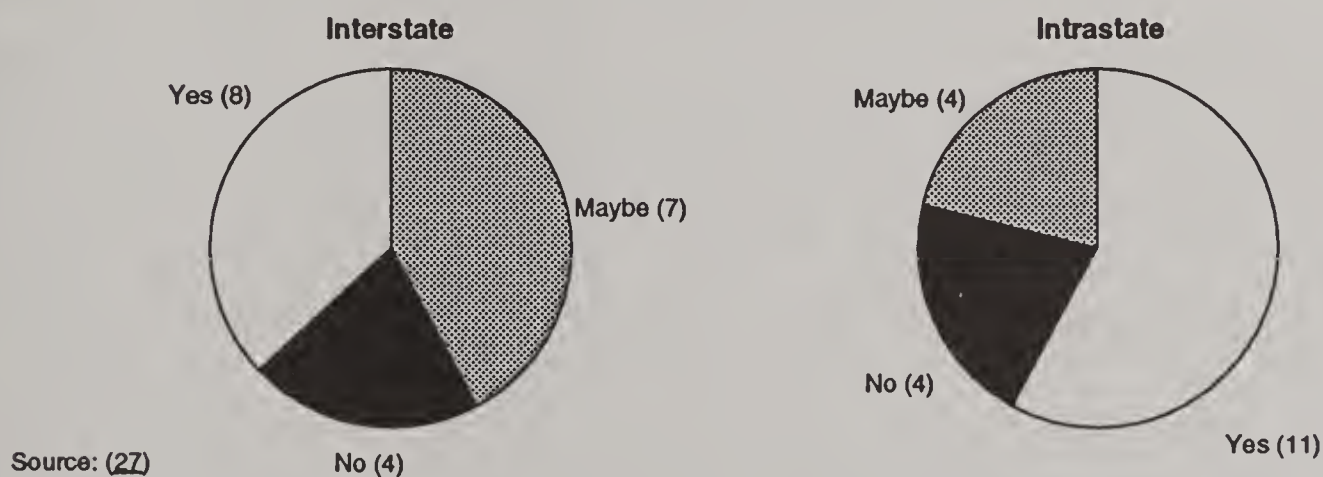
area).⁵² Of the 23 responses received, 4 indicated that their projects had not begun, leaving responses from 19 firms--a fairly small sample.

By the end of 1985, these firms indicated that they had created 1,036 jobs and invested \$27.4 million in Louisiana's rural EZ's. But when one nets out all jobs and investments that would have been created regardless of EZ policy, the net nationwide job creation associated with the Louisiana rural EZ program is only 203 jobs, and net investment is only \$1.0 million.

One finding of particular interest in the Louisiana study concerned the EZ's effect on firm interstate location decisions (fig. 6). Of the 19 firms surveyed, only 4 firms indicated they would have located their new jobs in the State regardless of the EZ program, and 7 firms were uncertain whether the EZ induced them to locate in the State. The remaining 8 firms indicated that Louisiana's EZ policy induced them to locate in the State rather than outside the State. From a national perspective, the net job creation resulting from this program is diminished because the jobs created by these eight firms were offset by potential jobs lost elsewhere. From the State's perspective, this influence of EZ's on the interstate location of firms is more desirable.

Louisiana's EZ policy was also found to have a substantial effect on intrastate location decisions. In particular, 11 of the 19 firms indicated their decision to locate within a particular parish was induced by the EZ policy. Only four firms made their intrastate location decision irrespective of EZ policy. Thus, Louisiana's rural EZ's significantly affected the location of job growth for the majority (60 percent) of the participating firms. Almost 60 percent of the firms would not have located in the local area (parish) were it not for the EZ. If a State's goal is to encourage more growth in its distressed areas, rural EZ's may represent a step in that direction.⁵³

Figure 6
Louisiana firms whose location decision was affected by EZ policy



⁵²At the time of the study, Louisiana had about 800 EZ's, but only 100 were active (that is, firms were qualified to receive EZ benefits within the zone).

⁵³One of the problems with such a conclusion is the possibility that some of the jobs whose location was induced by EZ policy may have otherwise been originally located in an even more distressed rural or urban area. This concern, that EZ's may be competing with other distressed areas, is particularly relevant to States with numerous EZ's, such as Louisiana.

By excluding new zone jobs that might have ended up in other States or localities in the absence of the EZ program, the authors argued that the Louisiana program was not cost effective from a national perspective. Local and State sales tax benefits received by all EZ firms yield a \$5,000 estimate for the cost per net job (nationwide) produced by Louisiana's rural EZ's. The authors compared this with the cost per job associated with the Louisiana JTPA program (\$2,887) and concluded that "other State and Federal job training programs are more cost effective in creating new jobs" (27).

This conclusion appears overly harsh for two reasons. First, the EZ is a job creation program and should have a positive multiplier effect on jobs within the zone, while the JTPA program may have a zero or even a negative multiplier effect. Failure to consider these likely multiplier effects appears to bias cost comparisons in favor of the JTPA program.

Second, the Louisiana study's approach to measuring net EZ jobs is too restrictive. Intent on netting out zero sum effects, it ruled out 80 percent of the reported jobs created by EZ's. In many cases, these jobs would not have occurred in Louisiana, much less in the zone, were it not for the EZ policy. Many EZ's are designed to redistribute jobs away from places that do not need them to places that do, so to totally discount such jobs when estimating cost per job may be misleading.

Case Studies

Most information about rural EZ's has come from the Department of Housing and Urban Development (HUD), which has actively encouraged the use of EZ's in both rural and urban areas. HUD has provided brief descriptions of several of the more successful rural zones in Missouri, Kentucky, and Minnesota (47), in addition to several detailed rural EZ case studies (46). These cases were not selected randomly and present a generally positive picture for rural EZ's. Almost all EZ case studies come from States with competitive programs. Nevertheless, they provide some useful insights about what makes for a successful rural EZ.

For example, Cuba, Missouri, a town of 2,100 people that promotes itself as "the gateway to the Ozarks," had been suffering from extremely high levels of economic distress, its unemployment rate reaching 13 percent in 1984 (43). A major plant had just shut down. The town experienced significant outmigration of young people. Two out of every three residents were living below the State poverty line. However, Cuba was able to turn things around in quick order following the election of an economic activist mayor and the formation of a local Industrial Development Board. The town settled on a strategy of building around a new industrial park. EZ designation was viewed as essential for attracting business interest in the park. The application process required "dogged persistence" by the mayor, but Cuba was rewarded with an EZ in May 1985 (43). The EZ helped secure \$1.6 million in additional State grants, and \$1.2 million in industrial revenue bonds to make public service improvements and low-interest loans to companies. A little more than 1 year after EZ designation, 5 new companies located in Cuba, 2 local companies expanded, and a previously closed plant reopened, creating a total of 450 jobs.

Cuba's experience refutes claims that EZ's (and other development policies) are ineffective in places suffering from severe economic distress. Despite its high poverty rate and other economic problems, Cuba was able to turn its economy around to where it became something of a regional growth center. Cuba had several noneconomic strengths that appear to have helped the EZ approach: active leadership and participation by the local community, a responsive State government that provided

significant nontax assistance, and the amenities of its Ozarks location. Not all distressed rural areas have these kinds of development advantages.

Macon is another of Missouri's successful rural EZ's.⁵⁴ Although its population is only 5,800, it is the largest city in Macon County (19). Macon's chief problem was a depressed economy. Macon County's unemployment rate was 22 percent in 1983 due to stagnant agricultural industries. It needed to diversify. Macon had no economic development program before it received EZ status and established the Macon County Economic Development Corporation (MCEDC). MCEDC completed all paperwork for local business permits and financing and it started a revolving loan program for businesses. Like other EZ success stories, Macon had generally good infrastructure, though State loans were required to expand local sewage treatment capacity. The city built a new industrial park to provide much-needed industrial space, and the EZ was used to market the space. The EZ gained 186 new jobs, a large number considering its small population. Most of Macon's new jobs were with four large industrial firms, only one of which was new to the area. Of the six firms creating jobs in the zone, four said the EZ incentives were the key to their investment. Two large firms decided not to close their plants in the EZ, saving an additional 435 jobs (46).

Hickman, Kentucky, a small rural community of 3,000 on the Mississippi River, turned things around with strong local commitment, State assistance, and a workable EZ development strategy (13). Hickman lacked local job opportunities, resulting in a long-term outmigration of young people. A task force was formed "to unite the leadership from all segments of the community - city and county governments, business and industry - to develop a master plan for effective development." This demonstration of local commitment to a development strategy was viewed as a key to the town's receiving EZ designation. Besides providing tax incentives, Hickman reduced natural gas rates for local businesses, fixed a rail spur to help the city's main industrial employer, and developed a new riverport complex to facilitate trade on the inland waterway. State and Federal assistance funded a video to market Hickman's EZ and port facilities. Following EZ designation, 24 small businesses expanded or located in the Hickman EZ, creating or saving over 200 jobs.

Thief River Falls, Minnesota, emphasized creating a positive business climate to help retain local businesses. Local businesses were invited to discuss problems with the local zone committee. The town's strength was its infrastructure, which included a regional airport. It also had a substantial vacant industrial space due to a large firm having recently moved out. Following EZ designation, the town received significant help from State CDBG (Community Development Block Grant) funds, as well as employment and infrastructure assistance. These projects generated new firm startups, 519 new jobs, and \$6.9 million in new investment in the zone. Almost all new jobs went to unemployed people, reducing unemployment costs (\$4,000 per year per person) considerably. Assessing the exact contribution of the EZ to these developments is difficult. Only one of nine new or expanding firms in the zone claimed the EZ incentives were crucial to their decisions, but most firms said the EZ had some effect on their decisions (46).

Michigan City, Indiana, with a population of 36,850, is an example of a larger nonmetro city that used an EZ to spur local development. Unlike most rural EZ successes, Michigan City had many infrastructure problems. It suffered from slum conditions and a bad overall image. The recession in

⁵⁴Missouri's program, like Minnesota's, is oriented toward rural areas. Of 24 Missouri EZ's, 6 were metro zones and 18 were nonmetro.

the early 1980's and loss of CDBG assistance (due to its inability to come up with the increased matching funds required by the State) prompted Michigan City to pursue the EZ approach. Among the city's strengths were available workers, vacant industrial land and structures, and location near major markets (Chicago and Gary) and amenities (Lake Michigan). The EZ gained 175 new jobs and saved an additional 1,040 jobs. Four of the six EZ firms surveyed indicated the EZ tax incentive was an important factor in their decisions.⁵⁵

Most of the credit for the city's success has been given to the switch from CDBG's "top down" approach to EZ's "bottom up" approach. The EZ has been viewed as a "catalyst" in drawing together the business community, local government, and zone residents. Five established economic development groups joined the city's urban enterprise zone association. The Chamber of Commerce operated the EZ under contract with the association. Many EZ firms pledged to donate 10-20 percent of their tax savings to the development effort, reflecting strong business support. The organizational success of the EZ organization helped secure State sewer funds.⁵⁶ Four new neighborhood organizations formed to offer volunteer labor to improve local recreation, employment, education, infrastructure, and housing (46).

Two success stories from Illinois show how EZ's can fit in with other local and regional development strategies. Princeton, a long-prosperous town of 7,300 with many positive characteristics (attractive retail sector, a diversified industrial base, strong community support, and effective leadership) ran into difficulty in the 1980's. The farm economy declined (Bureau County depended on farming for 15 percent of its employment) and two large corporations closed their regional headquarters, resulting in a loss of many high-paid jobs. To counter these difficulties, the Princeton Development Corporation (PDC) was formed by the Chamber of Commerce. Later, the Princeton Industrial Commission (PIC) was formed to get more input and resources from the city government, and to get a "one stop" development organization. PIC was charged with creating economic development strategies, communicating these to, and getting feedback from, the public, and working with external agencies (public and private sector).

Princeton's approach to development involved providing financial assistance to existing businesses to help them expand and attracting small- to medium-sized light industry to diversify but not dominate the economy. Competition with neighboring towns, however, required an industrial park and aggressive marketing of the building sites to businesses. Princeton first had to overcome two barriers: (1) an initial resistance to development efforts by a small percentage of older Princeton residents, and (2) a lack of financial resources to fund the development effort. PDC answered resistance through surveys and discussions that let all residents express their views. The financial barrier was overcome through cooperative efforts with the county, which helped finance the industrial park. This cooperation with the county and cooperative marketing efforts with neighboring communities led

⁵⁵Unlike other rural EZ case studies examined by HUD, most of the jobs created in the Michigan City EZ were found to have relocated from outside the State (most from the Chicago area), and many of the employees commute to their jobs from outside the zone. Apparently, this is not viewed as a problem by zone residents, who have seen considerable improvements in their neighborhoods associated with overall economic revitalization.

⁵⁶Michigan City also used Urban Development Action Grants and Industrial Revenue Bonds to encourage economic development.

Princeton, Ladd, and Spring Valley to apply for a joint enterprise zone in 1986. This enterprise zone was credited with encouraging the growth of 4 new and 11 continuing businesses (4).

This study did not focus on EZ policies or rate the EZ's importance relative to the other components in stimulating employment growth. But Princeton demonstrates how an EZ can contribute to cooperative, areawide development approaches that benefit nearby communities.

Beardstown, population 6,338 in 1980, is located in an economically stagnant area of rural west-central Illinois (Cass County) that, like Princeton, was adversely affected by the farm problems of the 1980's. Cass County's population declined 11 percent from 1980 to 1986; assessed property value dropped 17 percent from 1982 to 1987. Beardstown is a relatively poor town, with 1987 per capita income of about \$9,000, while the county's per capita income was closer to the U.S. nonmetro average of about \$13,000. The county depends largely on manufacturing, and Beardstown is the largest retail trade center in its three-county area. These two industries were particularly hurt by the shutdown of an Oscar Meyer plant, costing Beardstown residents 300 jobs, and the closing of a bridge crossing the Illinois river, affecting local merchants. In addition, the city hospital closed in 1986, costing another 50 relatively high-paying jobs, and in 1989 another plant closed, not only adding to local unemployment but causing an environmental cleanup problem (1).

Baird and Walzer (1) found that Beardstown's success in dealing with these problems stemmed in part from the extremity of the economic distress, which led to an aggressive community response not found in most other places studied. The city council funded a full-time economic development official, which few small cities do. Beardstown also benefited as the headquarters of the Central Illinois Public Service utility, which provided technical assistance. Young local businesspeople from "well-established families" provided key leadership to secure the trust and financial backing of the community. Beardstown also had a newly elected mayor with past experience in the public sector and an awareness of economic development opportunities.

The Beardstown EZ program was combined effectively with a Tax Increment Finance (TIF) program. After being designated an EZ in 1986, the zone "led to approximately 1,600 jobs by 1990, resulting in a 2.5-percentage point decline in the zone unemployment rate" (1). The TIF program allowed all increases in area property taxes associated with increased assessed value to be dedicated to area improvements. In addition, the State allowed TIF areas to retain increases in the State share of the sales taxes. Thus, the EZ and the TIF created the tax revenues needed to fund other economic development efforts, another example of an EZ used as a catalyst in the development process.

A study of New York's EZ program (15) highlighted the rural Olean zone as a cooperative venture involving the city of Olean, the towns of Allegany and Olean, and Cattaraugus County. This zone's commercial and manufacturing economy was experiencing a high level of economic distress at the time of zone designation (1987): per capita income below \$6,000, over 15 percent poverty, and a county unemployment rate of 6.7 percent. A consultant was hired to prepare the zone application, which included a proposal to purchase land for an industrial park and build a business incubator. The zone is being run by a nonprofit organization that has been successful in launching several housing initiatives, obtaining over \$500,000 in Federal and State grants for low-interest home improvement loans.

Thus far, however, the Olean zone has created only 126 new jobs in about 3 years. Although the zone certified 32 businesses, many have been hindered by the sluggish rural economy in the region and the

lack of job readiness of disadvantaged employees targeted by the incentives. Many small businesses appear unaware of how to obtain zone incentives. In addition, the zone boundaries initially excluded many of the existing businesses in the zone. Despite these difficulties, the zone's outlook remains hopeful. Zone staff have been credited with bringing in \$3 million in outside funding for economic development projects. With completion of the industrial park and incubator, and with improved marketing and a redrawing of the zone boundaries to include more existing businesses, more jobs are expected in the future.

Several other rural EZ's have received glowing reports, leading some observers to conclude that rural EZ's are doing well and are outperforming urban EZ's. In a 1989 article, "Do Enterprise Zones Work?", Patrick Marshall observed:

Another very important trend that seems to come out of the States is that the nonmetropolitan zones tend to do better than the inner-city zones. In California, for example, the greatest percentage of employment increase from 1986 to 1987 occurred in Eureka (61.2 percent), a small coastal town in Northern California, while the smallest increase (4.7 percent) occurred in the Los Angeles Central City zone....The results are similar in Illinois. The highest estimated increases in employment show up in such nonmetropolitan zones as Monmouth (7.8 percent) and Olney (6.7 percent), while the zones in Chicago had increases of only 0.6 percent to 1.8 percent... (21).

Sheldon and Elling found that in Oregon's new EZ program, "eight out of ten non-urban enterprise zones had attracted some new investment or some expansion of existing firms. No development had taken place in the one urban zone" (40).

One of the best explanations offered by those familiar with successful rural EZ's involves the notion of the EZ as catalyst. The HUD 10-case study reported:

For some small and medium-size cities starting economic development programs, the enterprise zone designation has become an organizing mechanism for the community to assess its needs, weigh its resources, and put together a package of programs, that, in addition to the enterprise zone incentives, becomes the City's principal economic development package (46).

The HUD report contrasted the small-city experience with that of large cities that already have economic development strategies. Big city officials viewed zone designation not so much as a catalyst but rather "as another tool in the City's overall program" (46). This point was made more emphatically by James Howell, who was cited as saying that for inner cities, EZ's "will be the caboose, not the engine, of the economic train" (26).

Even if a rural EZ does not suffer from subordination to other programs, then deficiencies involving amenities, linkage to markets, labor skills, and infrastructure can strangle development. Not many case studies of failed rural EZ's have been published, but an Illinois study provides two examples.

One was Canton, IL, which was hit hard by an International Harvester plant closing and had difficulty attracting new businesses to replace the lost jobs because it was "located outside the network of either interstate or rail transportation." The other EZ failure cited in this study was Mound City. Its rail connection was said to be "in jeopardy" and "its hopes of becoming both a barge repair site and a transfer point for goods moving from barges to rail or truck transportation (were) dimmed by prospects

of flooding...It would require a multimillion dollar project to build new pumps." Such formidable barriers to development caused both zones to perform worse than most other zones in the State (8).

Deteriorating infrastructure is fairly commonplace in rural areas. In addition, researchers have noted that rural zone managers often have less command of fiscal resources and less management expertise than do urban managers, making it more difficult to overcome local barriers to economic development, such as inadequate infrastructure or a poorly trained workforce. Rural EZ's usually must obtain State grants, loans, and technical assistance to deal with these problems. Consequently, most EZ assessments recommend increased State assistance.

Many observers have noted that distressed rural areas often lack the technical expertise to even apply for EZ status. Some programs (Alabama is an example) have enlisted the county government to apply on behalf of towns within the county. The county might also be required to provide specified government services, marketing, and other assistance to make the EZ work. But, as noted by Sheldon and Elling, some counties are not interested in coming to the aid of distressed municipalities within their jurisdiction. One way of getting around this roadblock is by giving the State EZ authority money in its operating budget so that it may assist such municipalities (40).

Another factor limiting rural participation in EZ programs is the difficulty rural areas encounter in meeting State population thresholds and/or zone area limits.⁵⁷ Minimum population requirements, common in many EZ programs, pose a significant problem for rural EZ's, as was noted by the Director of the Missouri Department of Economic Development:

Population density is so much lower that it makes it difficult to identify a work force within a rural area that has the potential of being designated an Enterprise Zone. Many small towns and rural areas have a high concentration of older, retired persons who do not make up part of the work force. These factors make it difficult to draw the boundaries of a manageably sized zone that will contain a sufficiently large labor force within its borders (19).

Some State programs have gotten around this problem by allowing cluster or joint zones, or by allowing discontinuous zones consisting of two areas connected by a highway--one containing the residences of the workers, the other containing an industrial park or unincorporated areas where some firms prefer to locate. Even with these more liberal zone restrictions, however, many rural areas may be excluded from participating in EZ programs, especially in States with competitive programs that allow only a small number of zones and where rural governments find it difficult to compete with urban governments in obtaining zone designations.

⁵⁷Among the States with explicit zone population minimums or land area maximums are Arizona, California, Indiana, Minnesota, Missouri, New York, Ohio, Vermont, Virginia, and Wisconsin. Two States, Georgia and Michigan, have each limited their program to a specific urban area, ruling out rural EZ's entirely. Most proposals for Federal EZ's include some form of population minimum or area maximum.

Conclusions

The diversity of State enterprise zone programs makes it difficult to draw overarching conclusions. Nevertheless, some major findings and policy implications deserve mention.

Most empirical research examined in this study agrees on the association of substantial job growth with enterprise zones (EZ's), both urban and rural. Although questions remain over how much of this job growth is attributable to EZ policy, most studies credit at least some job growth to EZ policy. Most researchers view this finding as an indication that EZ programs have been a qualified success, especially considering the severe economic distress of many of these places. EZ job generation appears to have lowered unemployment rates and reduced welfare rolls in designated zones.

One qualification is that EZ programs may not be creating many high-paying jobs. This is especially true for rural EZ's, which, based on rather limited empirical data, have been found to create jobs mainly in traditional, low-paying manufacturing industries. Because of problems in estimating the number of jobs attributable to EZ policy, assessing program cost effectiveness is difficult at best. The finding that some jobs created in EZ's come at the expense of job losses elsewhere complicates this cost assessment. Although this "zero sum" effect increases the cost of jobs created from the statewide and nationwide perspective, redistribution of jobs to distressed areas may be viewed as a desirable, if not an explicit, goal of EZ policy. Most researchers believe that the cost of creating jobs in EZ programs is reasonable when compared with other job creation programs, such as Urban Development Action Grants and Community Development Block Grants. Much remains to be discovered about the performance of EZ programs and the program features that are best suited to program success. Little evidence exists currently on such questions as how much do EZ jobs pay, who gets the jobs, how long do the jobs last, and what incentives are most effective? Until more is known about these questions, EZ performance will remain a controversial subject.

Another qualification concerns the high variability of EZ performance. This variability is particularly noticeable in noncompetitive programs, which create hundreds or thousands of EZ's, many of which are inactive. Most experts favor competitive EZ programs, which select relatively few zones in which to concentrate State and local development efforts. Even in competitive programs, however, the number of zones that are highly productive appears to be small relative to the number of zones that are marginally productive.

Few researchers have focused on rural zones, so the empirical findings on rural zones should be viewed as more tentative. The evidence suggests, however, that rural zones have performed as well as urban zones in job creation. Rural EZ's also appear to be as cost-effective, or perhaps even more cost-effective, than urban EZ's. Rural zone performance varies greatly; the most successful zones annually produce jobs for more than 10 percent of their population, while nonproductive or inactive zones create no jobs.

The most productive rural zones in creating jobs per capita have had the smallest populations. In such places, the EZ program can act as a powerful catalyst, provoking the community to organize a comprehensive development policy involving public-private partnerships and improvements in local government services and infrastructure. Other factors associated with superior rural EZ performance are local leadership, infrastructure, labor force, linkages to urban markets, and amenities.

Researchers are wary of increasing the number of EZ's in State programs, especially in States with a large number of zones (over 50, for example). Increasing the number of zones might reduce the marketing advantage held by existing EZ's and make it more difficult for a State to provide hands-on technical assistance to each zone, which is particularly important to rural EZ's. In those States with relatively few zones and only a handful of rural zones (especially in the Northeast), adding a few more rural zones to the program is unlikely to dilute the effectiveness of existing zones. Most rural zones have much smaller work forces and involve less cost to the State treasury than do urban zones.⁵⁸

Rural areas are often unaware of the EZ program or incapable of applying for zone status. States can pursue various alternatives to reduce this handicap, including providing technical and financial assistance in the application process and instructing county governments to provide such assistance to municipalities.⁵⁹ A rural set-aside may give rural zones a better chance in competitive programs. The optimal set-aside might call for either more or fewer rural zones than urban zones, depending on the State's urban/rural population mix and variation across the State in the need for the program.

Designation requirements should be flexible enough to meet the diverse circumstances facing distressed rural areas. More rural areas might participate if the EZ land area maximums were increased and population size minimums decreased. Rural zones might also be allowed (or even encouraged) to be discontinuous, including "cluster" zones (two or more communities that, when taken together, have enough resources and organizational capabilities to implement an effective EZ strategy). In programs that require local governments to devote a specified amount of their own local resources for supplemental local expenditures or tax incentives, those with minimal tax bases and extremely high tax efforts might not be required to spend as much on local incentives as other zones.

Additional flexibility could be built into EZ programs following the model adopted by Wisconsin. The Wisconsin program provides each zone with a per capita total amount of State tax incentives, allowing the zone to choose from a menu the type and amount of incentives offered to each firm. The State monitors EZ projects to make sure they benefit the community, and if not, it has the power to de-certify a company that doesn't perform. Results in Wisconsin have thus far been positive (16). Because rural economic problems vary a lot from place to place, such a flexible EZ program may be particularly advantageous for rural zones.

Rural zones may also need more State technical assistance after designation, including help in designing infrastructure improvements, setting up training and business loan programs, and marketing the zone. In noncompetitive programs, the State might require rural EZ's to employ strategic planning to enhance the zone's potential for success. This foresight, though, may require additional State personnel to help with the planning. Research suggests the results may be worth the expense.

⁵⁸The cost of rural zones could be higher, of course, if the zones were larger, encompassing whole counties or multicounty areas.

⁵⁹It may be better in some cases to have other entities, such as multicounty economic development organizations, prepare EZ applications for small communities. Indeed, it may be preferable in many places for such organizations to operate the zone, since they tend to be more "entrepreneurial" than local governments and often have technical and financial resources not available to the local government (38).

The screening process might be strengthened to weed out applying zones with little development potential. The process could be largely subjective, as with competitive programs, or it could be objective and automatic as in the qualifying process of noncompetitive programs. A recent study of the New York EZ program has shown the importance and usefulness of providing relevant data on zone characteristics to those that make zone designation decisions (7).

Many rural areas should be screened out, including those that are not interested in development and those that face insurmountable barriers to development, lacking such necessary ingredients as an adequate labor force, linkages to markets, basic infrastructure, and leadership capacity. Research suggests, however, that many places experience economic distress but still have a good chance to overcome their problems with the help of an EZ. Many highly distressed places have already benefited from EZ's. A screening process that focuses on these places should increase the success rate of EZ's. With fewer inactive or unsuccessful zones marring the image of EZ's, the marketing advantage of the zones should improve, adding to the prestige and success of the program.

EZ business incentives might be revised to reduce costs and improve outcomes in line with program objectives. Some programs contain incentives that appear to be excessively costly and do not produce many jobs, such as Indiana's inventory tax credit that primarily benefits large warehouse businesses with a handful of employees. Some programs may make it too easy for nonresidents to get jobs, leading to relatively few new jobs for disadvantaged employees. Other programs may target their worker incentives too exclusively to zone residents or disadvantaged individuals, making it difficult for more than a handful of businesses to take advantage of tax credits. Many programs have nonrefundable tax credits that are of little value to fledgling small businesses with few profits in their initial years. Most of these problems are easily detected by program evaluations, and their solutions might involve only minor changes that could be phased in over time.

A particular concern for rural EZ's is the tendency for some programs to target too narrowly on large manufacturing concerns that offer only low-paying jobs. If unemployment is the main problem, then this may be appropriate. The most pressing and permanent problem in many rural areas, however, is low income. The EZ approach is not the best way to deal with this problem, unless program incentives are focused more on small businesses and industries with higher-paying jobs. EZ programs might also vary tax incentives to reflect the types of industries most likely to generate new jobs and investments in a particular locality (given the nature of the local economy, its infrastructure, labor force, amenities, and other characteristics).

State enterprise zones may not have lived up to all the promises made by early proponents, but evaluations have shown them as effective as some more traditional economic development policies in creating jobs. This review of the literature finds that rural enterprise zones have been as effective as urban enterprise zones in creating jobs in distressed areas. By no means the answer to all rural problems, enterprise zones still represent a valuable new tool for rural economic development. The 1980's provided a good beginning, but EZ programs can be fine-tuned to better meet the needs of rural areas.

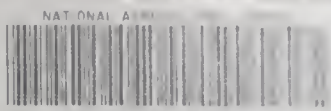
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